Architectural Library

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A Journal for the Drafting Room

Pencil Study by T. De Postels

NOVEMBER 1923

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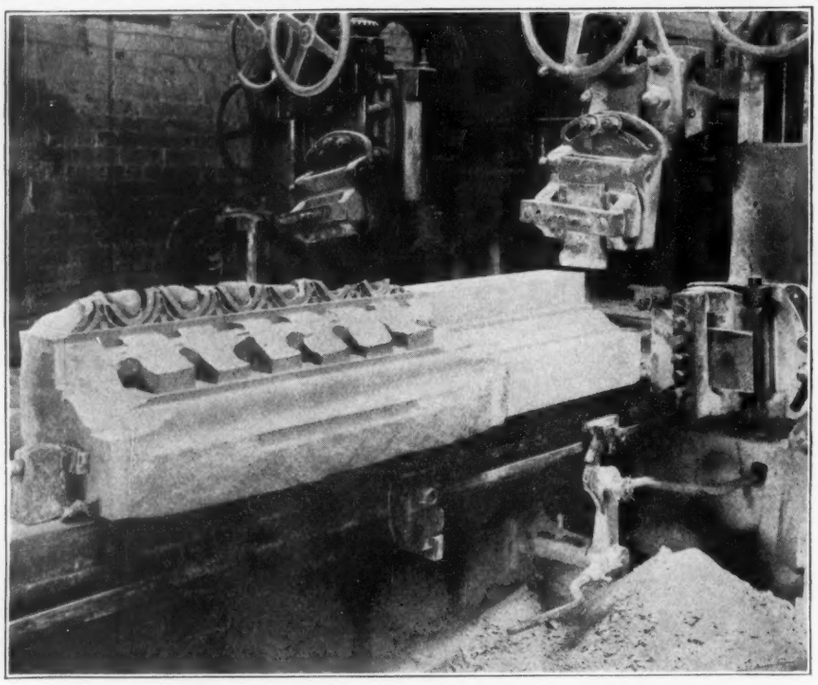
Box 177, Pencil Points.

References if required. Box 934, Milwaukee, Wis.



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VOLUME IV NOVEMBER 1923 NUMBER 11

VISUALIZATION

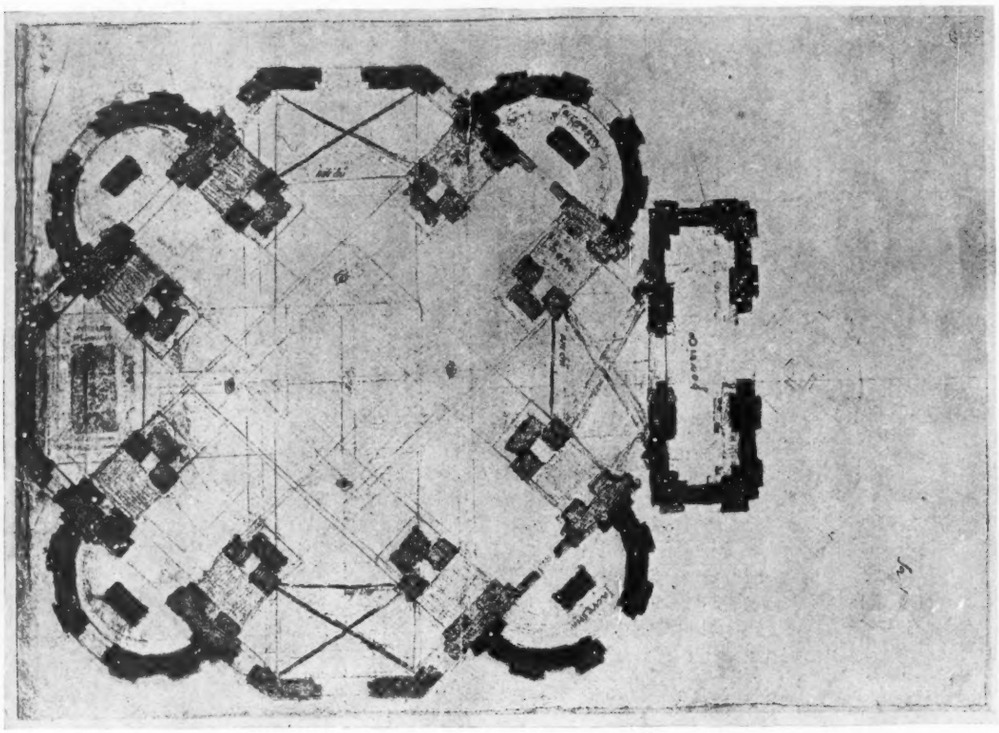
THE articles and illustrations in this issue represent various steps in the visualization of architectural design, from the making of the embryonic sketch to the preparation of the most carefully finished presentation drawings—and always the mastery of the means of graphic expression is an important factor.

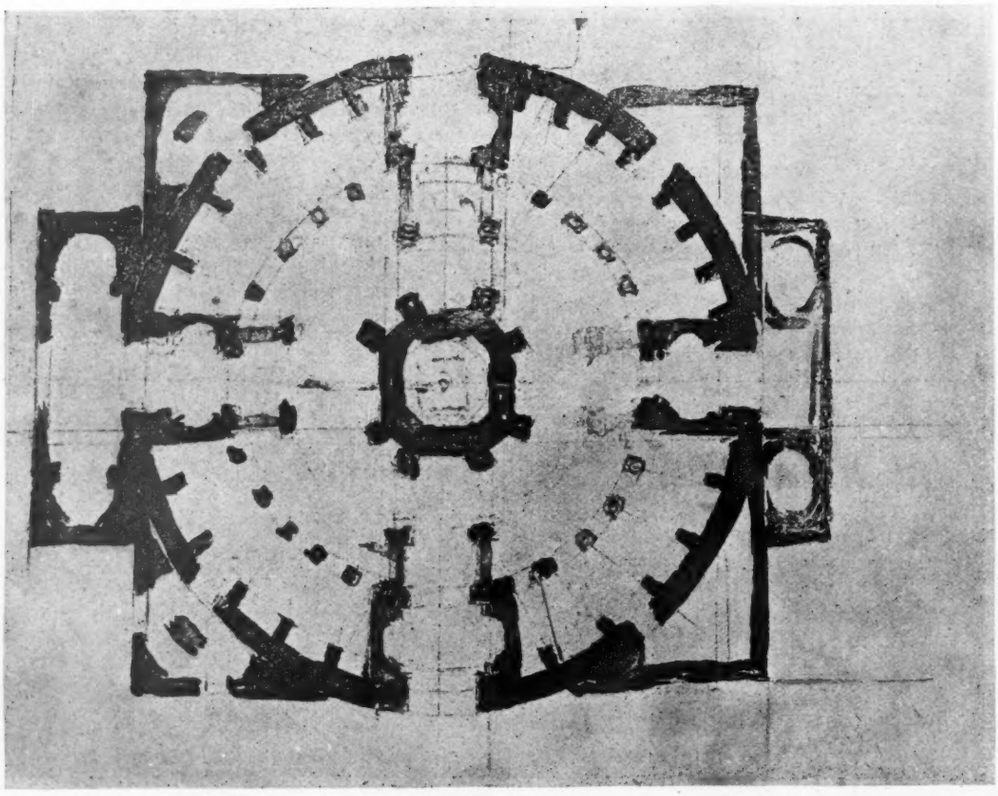
Crude as the rough sketch of an idea for a marine museum by Roger Expert appears, it is the work of a master of drawing, a man whose name is familiar to everyone who is acquainted with the premiated work of the *concours* at the *Ecole des Beaux Arts*. In setting down his idea he has not let any thought of the appearance of his drawing clog his mental processes, or distract his attention from the problem. It is the kind of sketch a man makes on the back of an envelope or on any scrap of paper that may be at hand. The first sketch of many a monumental building has been made on the table cloth of some restaurant. This is a true embryonic sketch, it is not an *esquisse* in the accepted sense. Such a sketch means a great deal more to the man who makes it than it does to anyone else—he reads into it many things that he has in his mind. Its making serves him in two ways, it helps him in visualizing his idea and serves as a memorandum of his *parti*. A man's first reaction to a problem is often the best, it is a fleeting impression often and needs to be fixed on paper or at least drawn out in some way in order that it may be preserved. Even drawing it on a table cloth causes the idea to have a definite form that is more easily held in the memory than a solution that has never been drawn out at all. The embryonic sketch that sets forth the main points and leaves one free to make adjustments that will take care of the myriad minor considerations is the best starting point in the development of a design. Such a sketch leaves the idea, as one friend of the writer well expresses it, *fluid*, brings it out of the nebulous state into a condition in which it is easily workable, rather more pliable than the condition expressed by *plastic*. The importance of making the right kind of embryonic sketch, one that is definite and not to be departed from so far as the main idea is concerned, but not hard and fast in any other way, is of so much importance that much space has been given to the subject here. It is not only in Mr. Milliken's article that this matter is taken up but in Mr. Breiby's article. Mr. Breiby carries forward the description of the process from the point discussed by Mr. Milliken and shows how the idea is further developed by the means of study sketches and simple presentation drawings in plan and elevation. Mr. Swales takes up the matter in turn and goes into the technique of rendering the finished presentation drawings that show the fully studied design. Together, these articles represent architecture in the making—and in every case it is a matter of visualization. It is very fortunate that we are able to show an embryonic sketch by the late Charles Follen McKim, and the front elevation of the set of competition drawings for the New York Public Library by Carrère & Hastings, also a remarkable example of fine presentation drawing, a drawing of the New Theatre, by the latter. In order that the reproductions of the drawings of the New York Public Library and of the New Theatre may be of the greatest possible use to our readers portions of these drawings are shown here at the exact size of the originals and the gradations of tone have been preserved so far as is possible in a reproduction.

Visualization of a different kind is represented by the landscape fantasy in pencil by Theodore de Postels which is shown on one of the plate pages. This is one of many fantasies made by Mr. de Postels as an expression of his longing for the scenes of his native Russia during his first winter of residence in this country. These are true fantasies, representing memories and impressions but not depicting any particular bits of nature. In contrast to this drawing is shown a drawing by the same artist, the grand staircase of the Capitol at Albany, that is photographic in its detail and infinite gradations of tone. Still another manner of this artist is shown in the drawing on the cover of this issue.

The photograph by Frederick Boissonnas brings vividly to one's mind the beauty of the little temple of Nike Apteros. The etchings by D. Y. Cameron and Charles Meryon charm us with their rendering of quaint architecture. Paper and pencil, etching plates and printer's ink, all vibrant with life.

The importance of drawing as an aid to the visualization of architectural designs is so clearly evident that it would seem as though sufficient attention would naturally be given to training in free-hand drawing such as sketching and drawing from life, but in too many instances these branches are more or less neglected. Since the ability to use the pencil with freedom and sureness is essential in the making of study sketches and in the rendering of presentation drawings, it is well worth the while of every student and every architect to do as much sketching as possible.





Figures 6 and 7. Sketch Plans for a Church by Michael Angelo. From "Die Handzeichnungen Michel Agniolo's Buonarrote" by Karl Frey. Courtesy of The Metropolitan Museum of Art.

THE EMBRYONIC SKETCH

BY HENRY OOTHOUT MILLIKEN

A PAINTER or a sculptor has a great advantage over an architect in being able, with his own hands, to realize his idea and give it its concrete form. We are forced to have other people construct our ideas for us, which is a long and complicated process. To make the client willing to buy the idea and the workmen able to build it, we have to convey it to them by conventional designs, figures and words, on a flat sheet of paper. With all this complication it is a wonder that there is so much good work really built. Our quickest method, when we can't get someone to understand what we are driving at, is to whip out a pencil and make a perspective or a plan and elevation. Our most direct method of personal expression is therefore the sketch, and this article is written to call attention to the lack of training in its use and to suggest that its importance be more fully appreciated.

The preliminary sketches called for by the Beaux-Arts Society and the Competition for the Rome Prize, give the student a great chance to perfect his technique. The reason such drawings are demanded (esquisses as they are sometimes called), is not always understood and we will therefore discuss them for a moment:

First of all, it is the finest sort of training in thought and in logic. It forces one to concentrate all one's mind on the solution of the problem; to concentrate until thoughts begin to take form. It is not often that a clear image with every detail will immediately crystalize in one's brain, but the big masses and broad lines of a treatment will little by little take shape in the mind. The chief requirements will group themselves in the order of their relative importance with the conditions of site, construction, practicability and beauty forcing them into a unity.

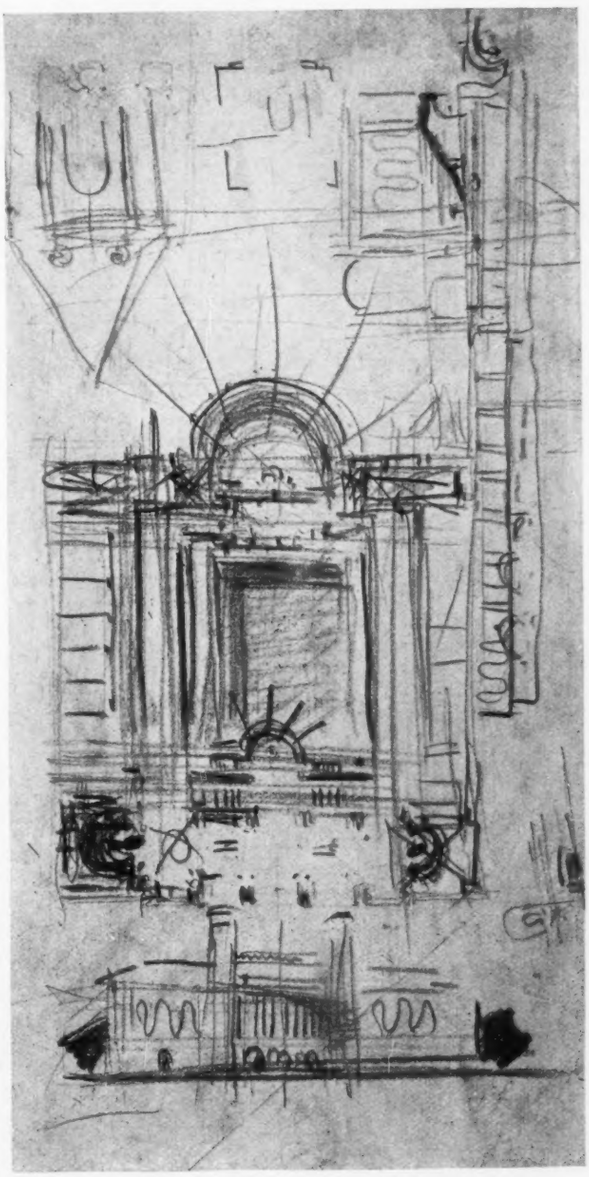


Figure 1. Sketch for a Marine Museum by Roger Expert.

To any problem there are usually several good solutions. A very well known foreign teacher has said, "There is no *best* solution of an architectural problem; what counts is the thoroughness with which the one chosen is worked out." This is what keeps architecture a live art, just as the inevitable single answer to a mathematical problem makes mathematics a deadly science. After thinking hard about a problem it is probable that *a* solution will occur to one almost immediately—a germ of an idea at least. This is an embryo: "A thing conceived, but not yet developed or executed," and the first note of it may take some such fluid form as Figure 1. Some men develop their ideas from this point on tracing paper, until assured of the feasibility of the scheme from every point of view and of its possibilities.

Some make their first sketches in perspective, in this way keeping closer to reality. Through this building planes are passed as in solid geometry and the plans and sections given by them studied until the scheme is proved to be feasible and to have possibilities not yet fully conceived. A true esquisse is then made, not tying one down to nonessentials but clearly indicating the guiding thought, or what is known in France as the "parti." The foreign custom is to make this drawing in copying ink which allows an exact copy to be kept by the student.

(*Continued on page* 57)

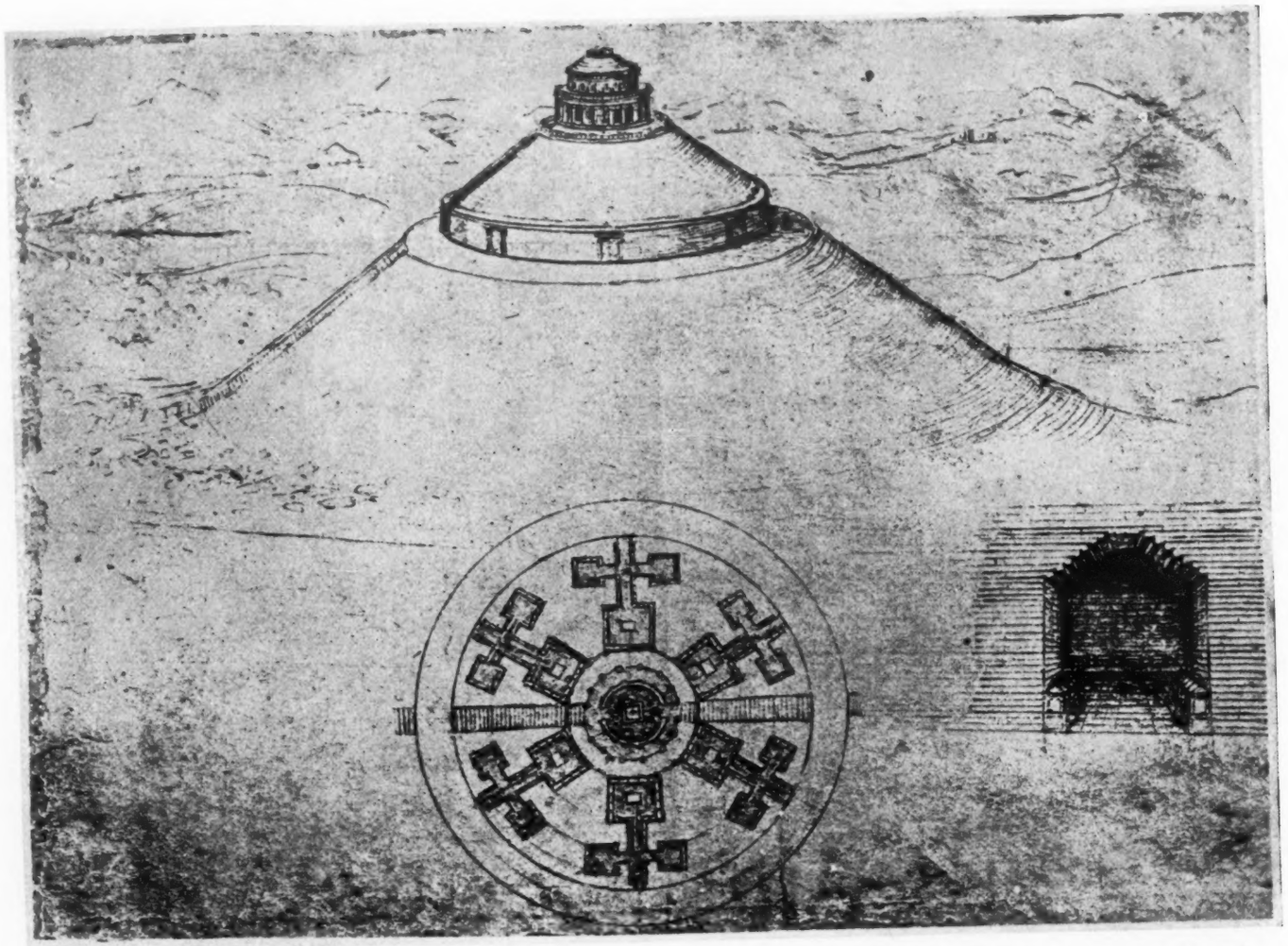


Figure 5. Sketch for a Mausoleum by Leonardo da Vinci. From "Leonardo da Vinci" by Giorgio Vasari. Published by Luigi Pampaloni, Florence, Italy.

Copr. Augusta H. Saint-Gaudens

Figure 2. Sketches for the Shaw Monument by Augustus St. Gaudens. From "Reminiscences of Augustus St. Gaudens," by Augusta H. St. Gaudens. Published by The Century Company, New York.

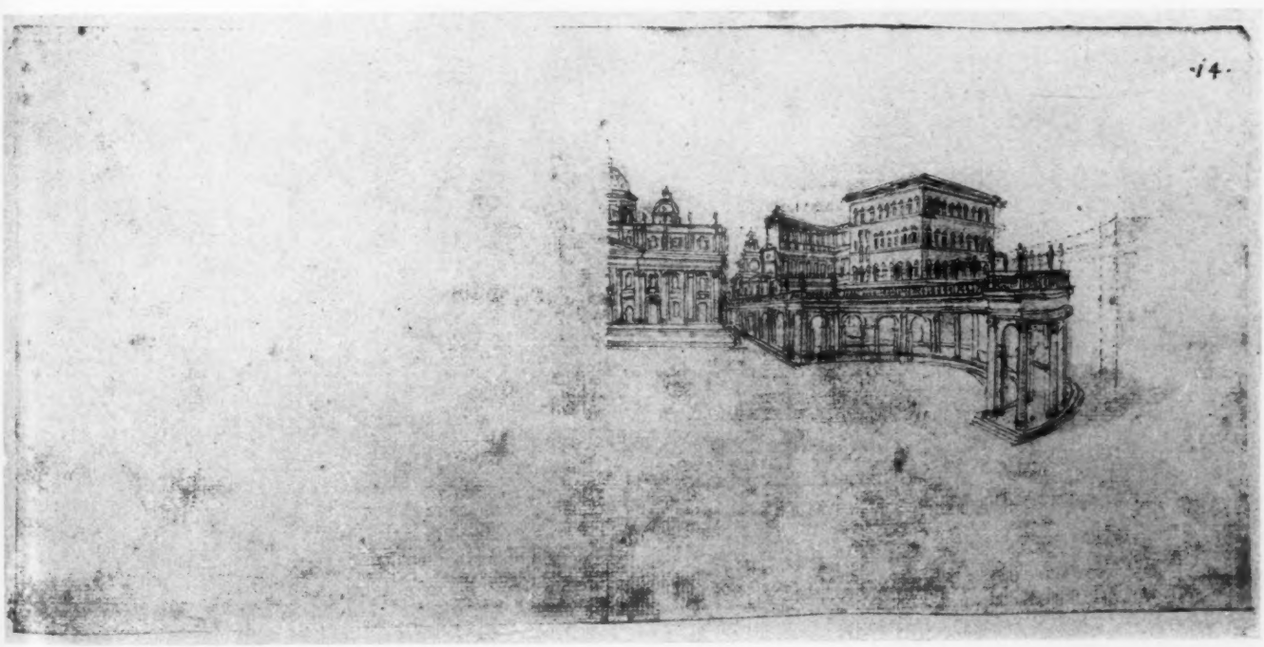


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Figure 3. Study for the Forecourt of St. Peter's by Bernini. From "Bernini and Other Studies in the History of Art" by Richard Norton. Published by The Macmillan Company.

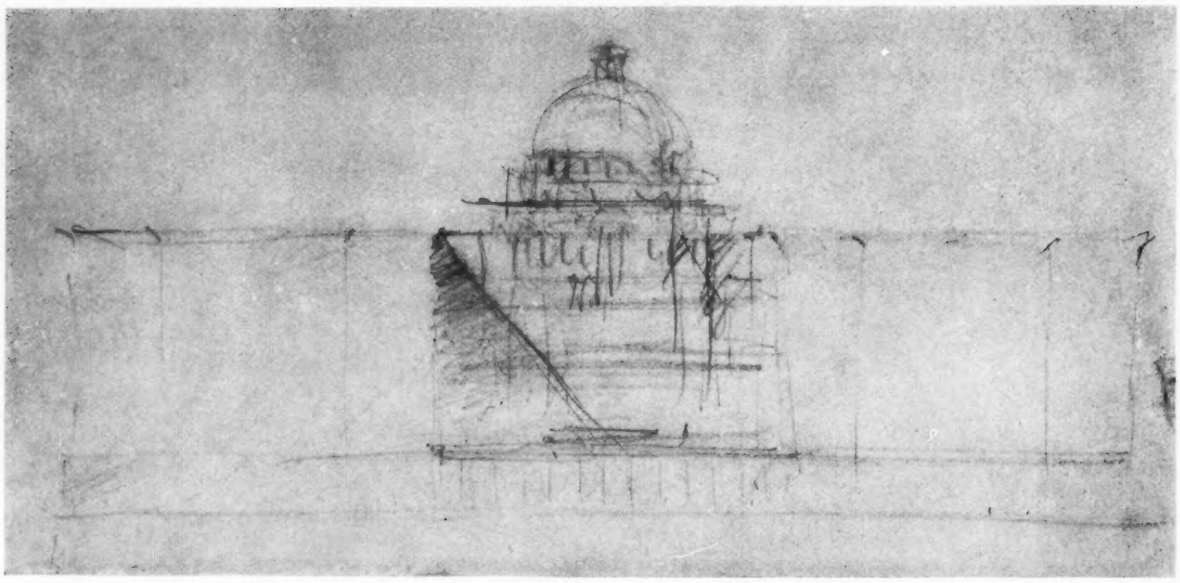


Figure 4. Early Sketch for Bellevue Hospital, New York City, by the late Charles Follen McKim. Reproduced from the original drawing through the Courtesy of McKim, Mead & White.

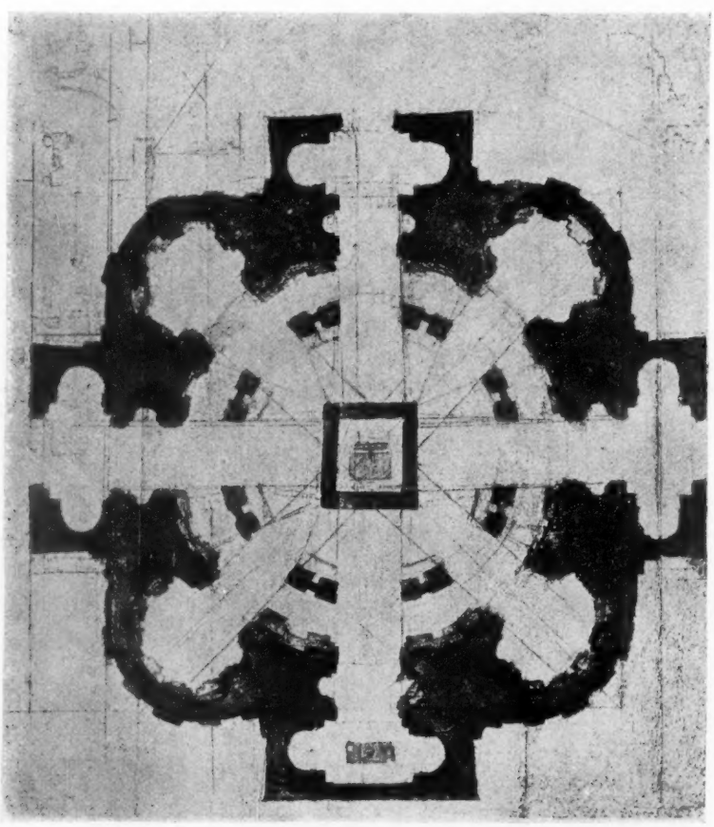


Figure 8. Sketch of Plan for a Church by Michael Angelo. Courtesy of the Metropolitan Museum of Art.

THE TECHNIQUE OF RENDERING, PART III.

BY FRANCIS S. SWALES

In the serial article of which this is the third installment Mr. Swales explains practical methods of rendering. These methods, though based on what may be regarded as standard practice include variants that have been found effective in actual work. In preparing this article Mr. Swales has drawn freely upon the fund of experience he has gained in his architectural work.—ED.

TO THE architectural workman the finely made and conventionally rendered drawing most clearly showing every detail necessary to the total effect of the design means most. It may not necessarily be artistic, but it must be correct. It must conform to high standards of technique. It may lack originality of ideas and may possess only artificial "feeling"; but must not be lacking in knowledge of those conventions which constitute a clear and common means of communication between artist and artisan, or artisan and artisan. Such are the drawings of Classic and Renaissance monuments and details made by the French students, sent to Rome, as holders of the *Grand Prix*, and reproduced in D'Espouy's compilations "Fragments d'Architecture Antique," "Monuments Antiques," etc. If the drawing communicates ideas and impresses with that spontaneous feeling which charms the eye and mind as well as satisfies the discerning observer, so much the better—the nearer it comes to being a work of art.

It is good training on the part of the student to make very careful drawings of the orders—the simple Roman Doric, at first, at a fairly large scale. Use "Vignola" as a guide (there are plenty worse). The better editions explain the casting of shadows and for supplementary elucidation use McGoodwin's "Shades and Shadows." When the stage of rendering is reached use the simplest model that can be found—the one that seems to call for the least amount of work. By the time a half-dozen such drawings have been made progressing through the Roman Ionic, Greek Doric and Greek Ionic, but not before, try such representation as the Corinthian capital and base from the Temple at Cori, using illustration of the drawing by Bruné (see Figure 1, Part 1, August number) as a guide. Bear in mind that the original drawing is slightly lighter in tone than the illustration. (Compare the white paper with the "white" of the illustration in order to find how much lighter.) Use light diluted ink for the lines, and pale monotone washes for the renderings.

Color is seldom necessary in such drawings, and monotone is the satisfactory refuge of those who lack a refined sense of color—which is the vast majority of architects and draftsmen, even though they may be highly accomplished in the scholarship and artistry which deals with form. Also, it may be observed, that such sense is not strong in the American people. This is not to contend that the monotone is better than clear color for academic

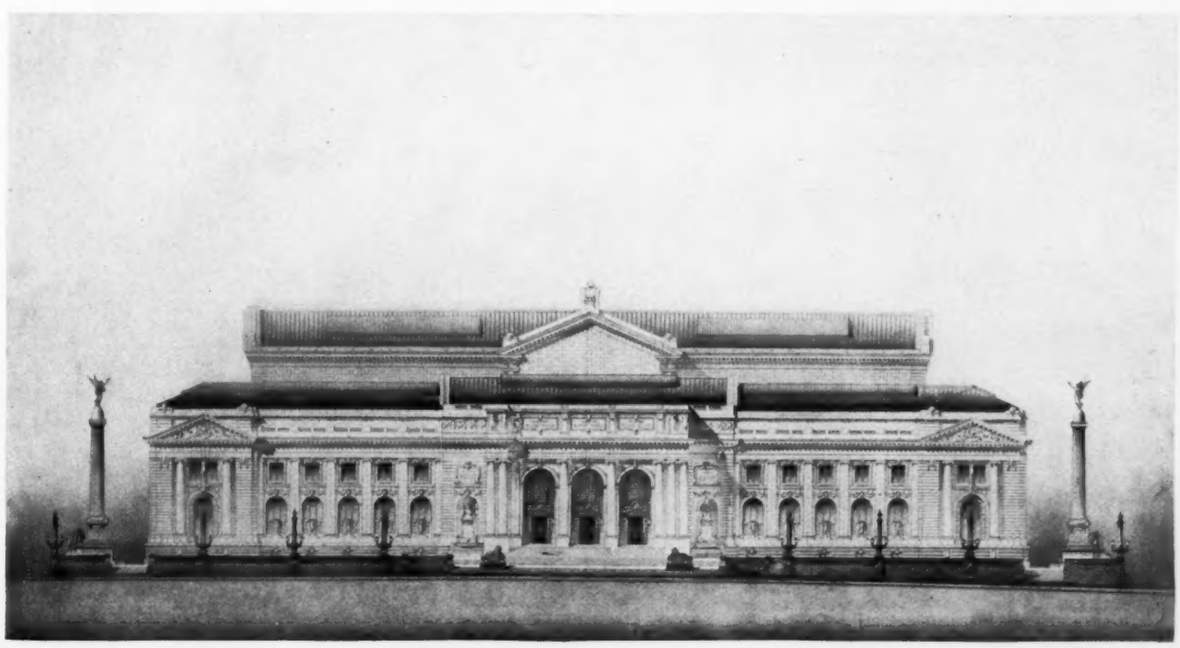


Figure 15. Competition Design for The New York Public Library. Carrère & Hastings, Architects.

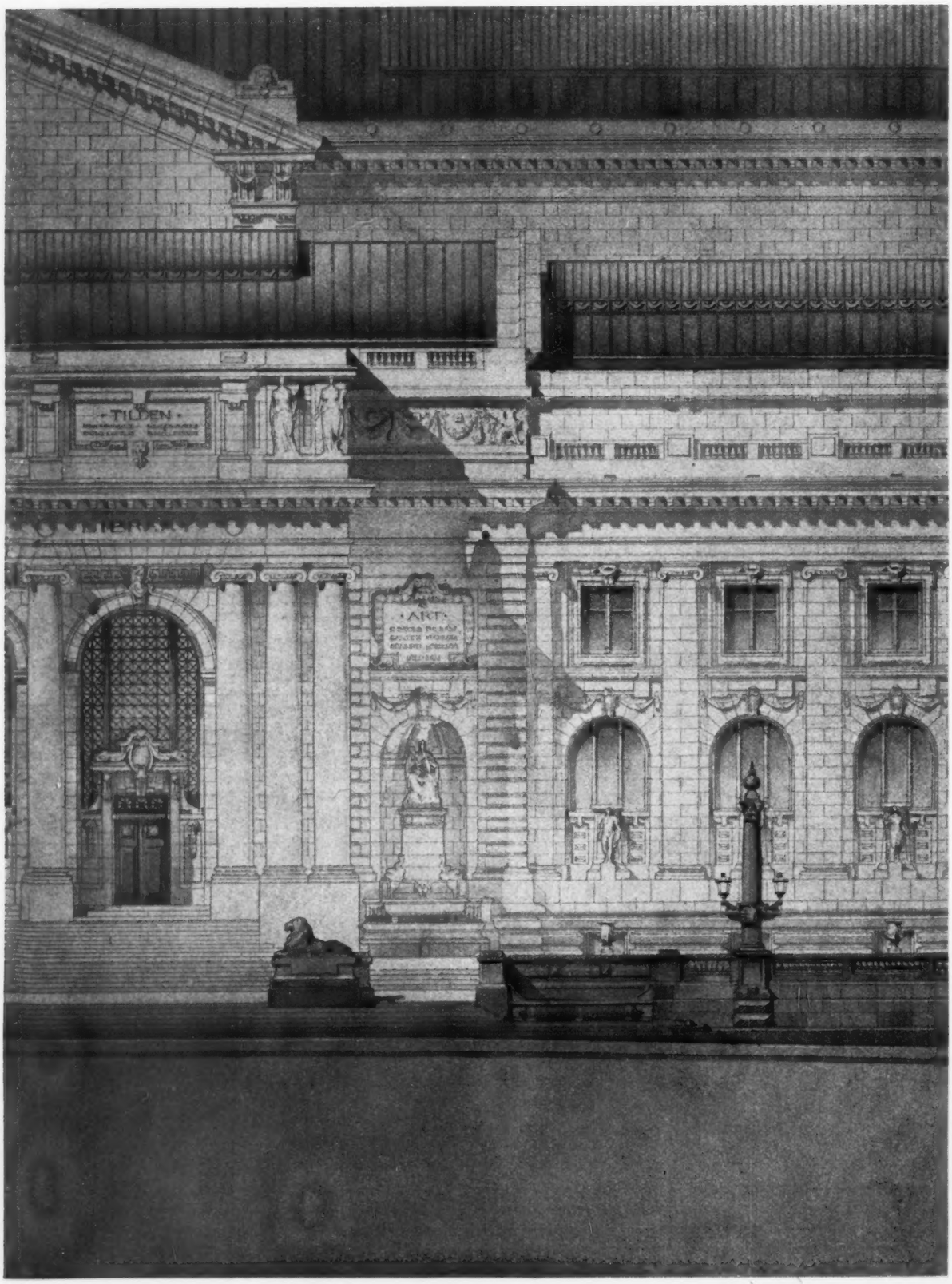


Figure 16. Portion of Competition Design for New York Public Library. Reproduced at Actual Size of Original Drawing. Scale $\frac{1}{16}$ in. = 1 ft. Carrère & Hastings, Architects.

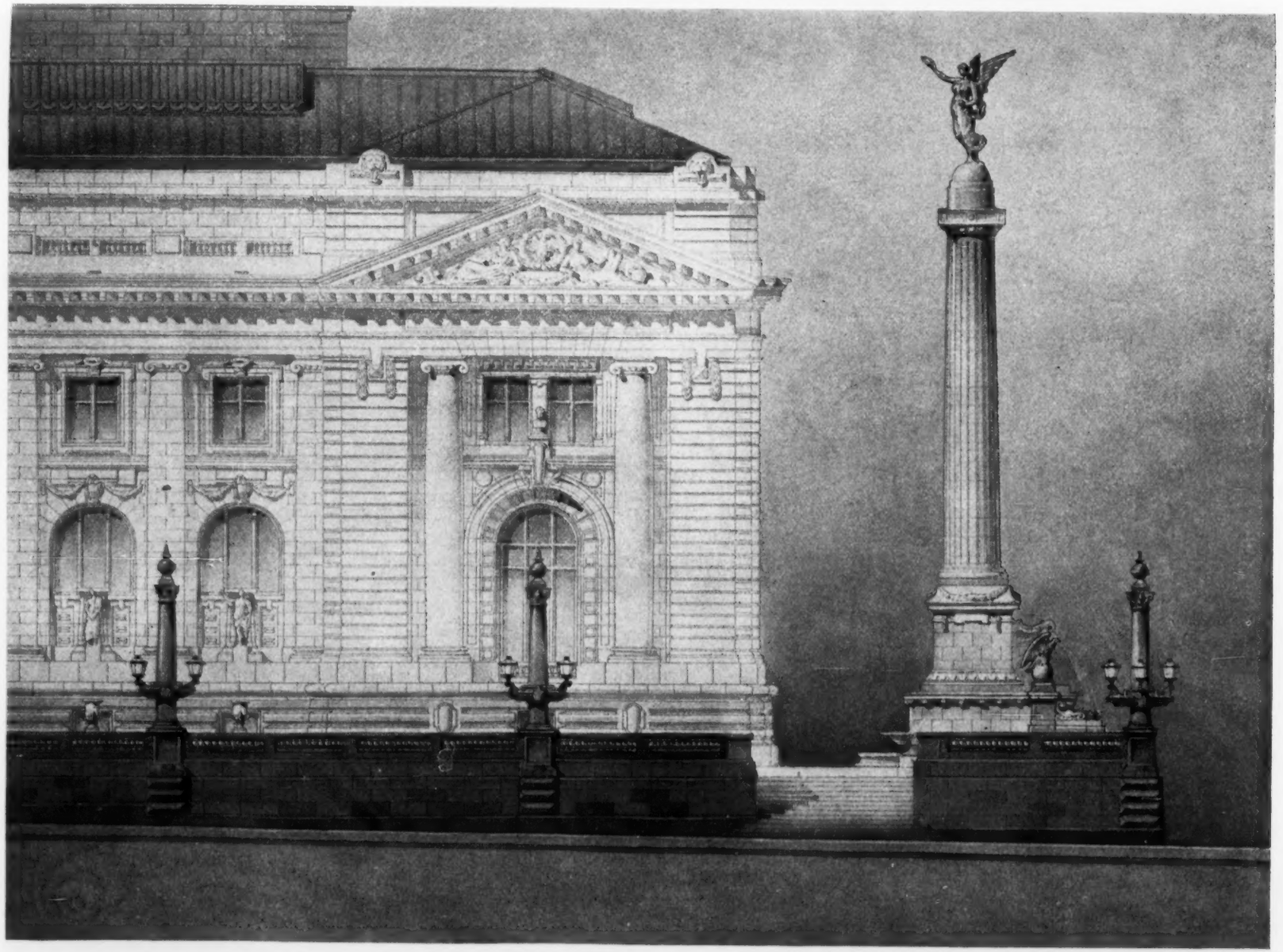


Figure 17. Portion of Competition Design for New York Public Library. Reproduced at Actual Size of Original Drawing. Scale $\frac{1}{16}$ in. = 1 ft. Carrère & Hastings, Architects.

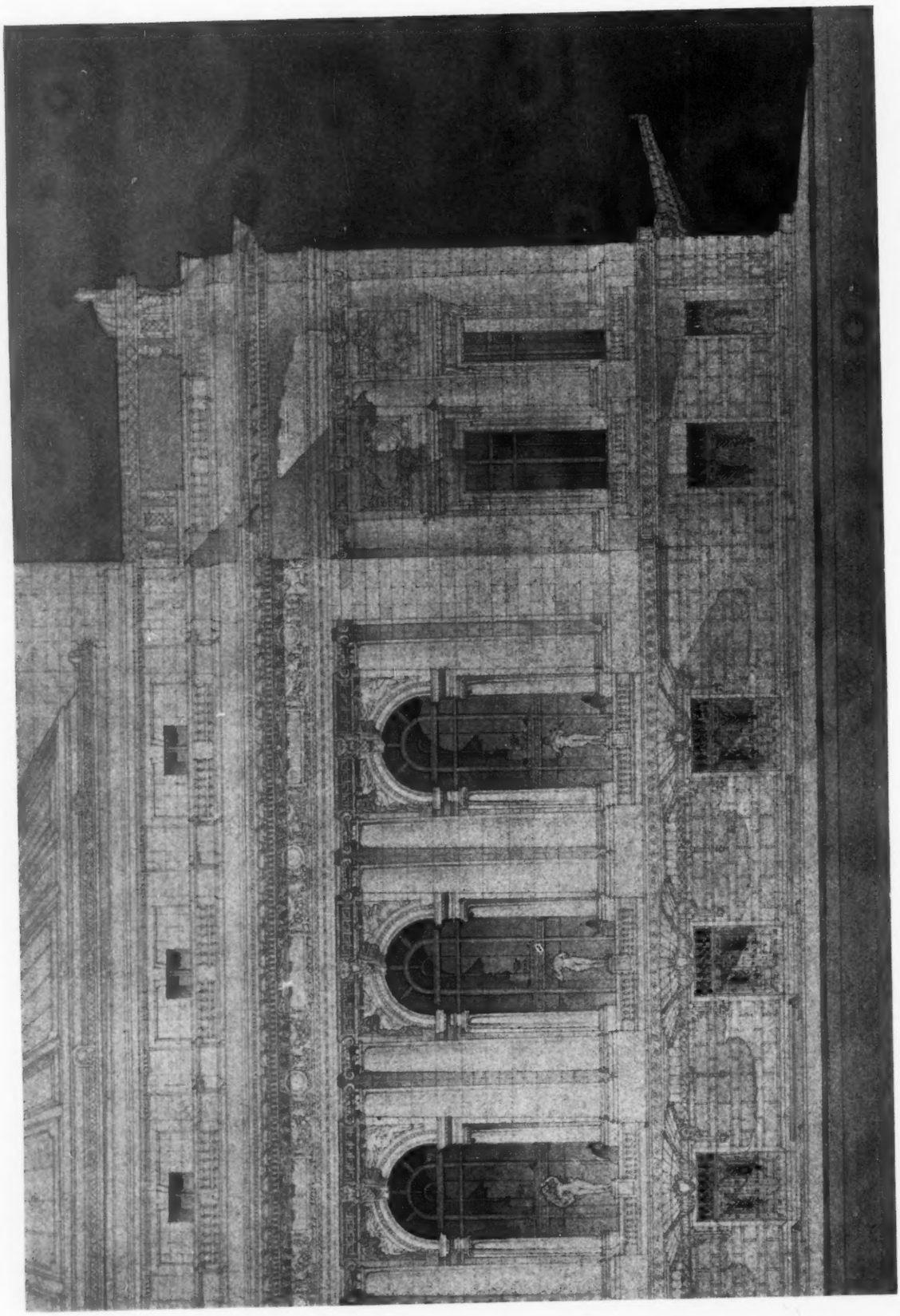


Figure 21. Portion of Competition Design for the New Theatre (Now the Century Theatre), New York City. Reproduced at Actual Size of Original Drawing. Scale $\frac{1}{16}$ in. = 1 ft. Carrère & Hastings, Architects.

rendering. A study of the magnificent drawings of the restoration of *Selmonte*, by Monsieur J. Hulot, which are in clear color, would refute any such contention. It is merely *easier* to produce a correct effect of modelling and to learn a formula for effective production, if one has but one color to consider. It simplifies matters to eliminate from consideration such problems as are encountered by attempting to approximate nature with representations of foliage, skies, etc. The type of drawing which is confined to what may be termed the mathematics of rendering—which consists of a countable number of washes of single tone as well as but one color—to create atmospheric effect and define the third dimension affords the best training, and in the long run, is the most satisfying to the average student possessed of some scholarship in architecture. It is also the kind that will reproduce most nearly to the original by process of engraving. Color constitutes a study by itself which can be taken up after values in one tone are well understood. Ability to produce good monochrome wash drawings is soon acquired by the student who has learned to draw from the plaster cast.

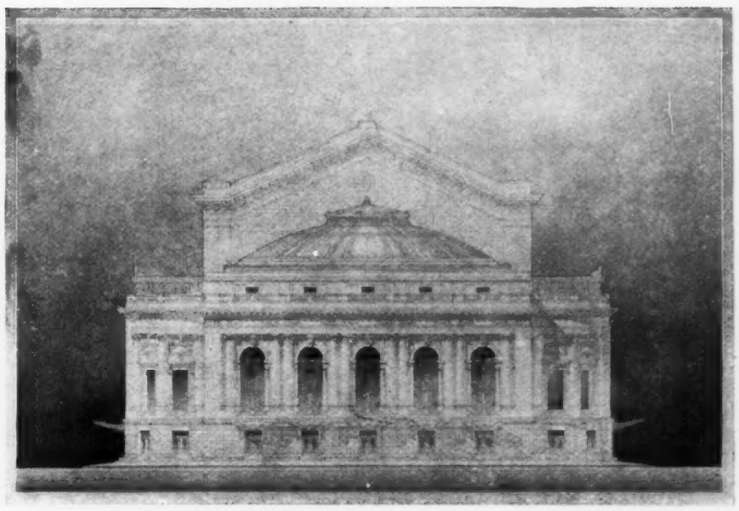


Figure 20. Competition Design for The New Theatre (Now the Century Theatre), New York City. Carrère & Hastings, Architects.

The rendering of elevations, especially competition drawings, is a subject which most draftsmen desire to take up, at least the men with a real interest in architecture. Usually the process of the office-trained man is to take as a model the work of the best draftsman in the office, or to use the best plates he can find in the architectural magazines as a guide. How good as standards, and how applicable to the subject with which he is about to deal, such models and guides may be is often difficult for him to determine. The disadvantage of the usual plate is that it is not to any *familiar* scale, and never, as far as I have observed, is at the same scale as the original drawing. Therefore it has been nearly useless as a guide to technique.

The illustrations to this article are a new departure. Figures 15, 18 and 20 illustrate the general effect of three drawings. Figures 16 and 17 are reproductions of portions of Figure 15 at the actual size of the rendering. In this case the original drawing, by Mr. T. E. Blake and Mr. Chester Aldrich, was made at $\frac{1}{8}$ inch scale, then reduced to $\frac{1}{16}$ inch scale by a copper-plate engraving reproduction, printed on a sheet of water color paper and the print rendered in wash by Mr. Aldrich. The drawing is one of the very few really first-class monochrome (so-called "India Ink") wash drawings produced in American practice which is free from such mechanical process work as that of the blower, atomizer and air brush. It is also free from the use of body color, Chinese white, or washes containing it, full strength prepared ink, crayon or

Figure 18. Competition Design for State Library, Sacramento, Cal. Francis S. Swales, Architect.

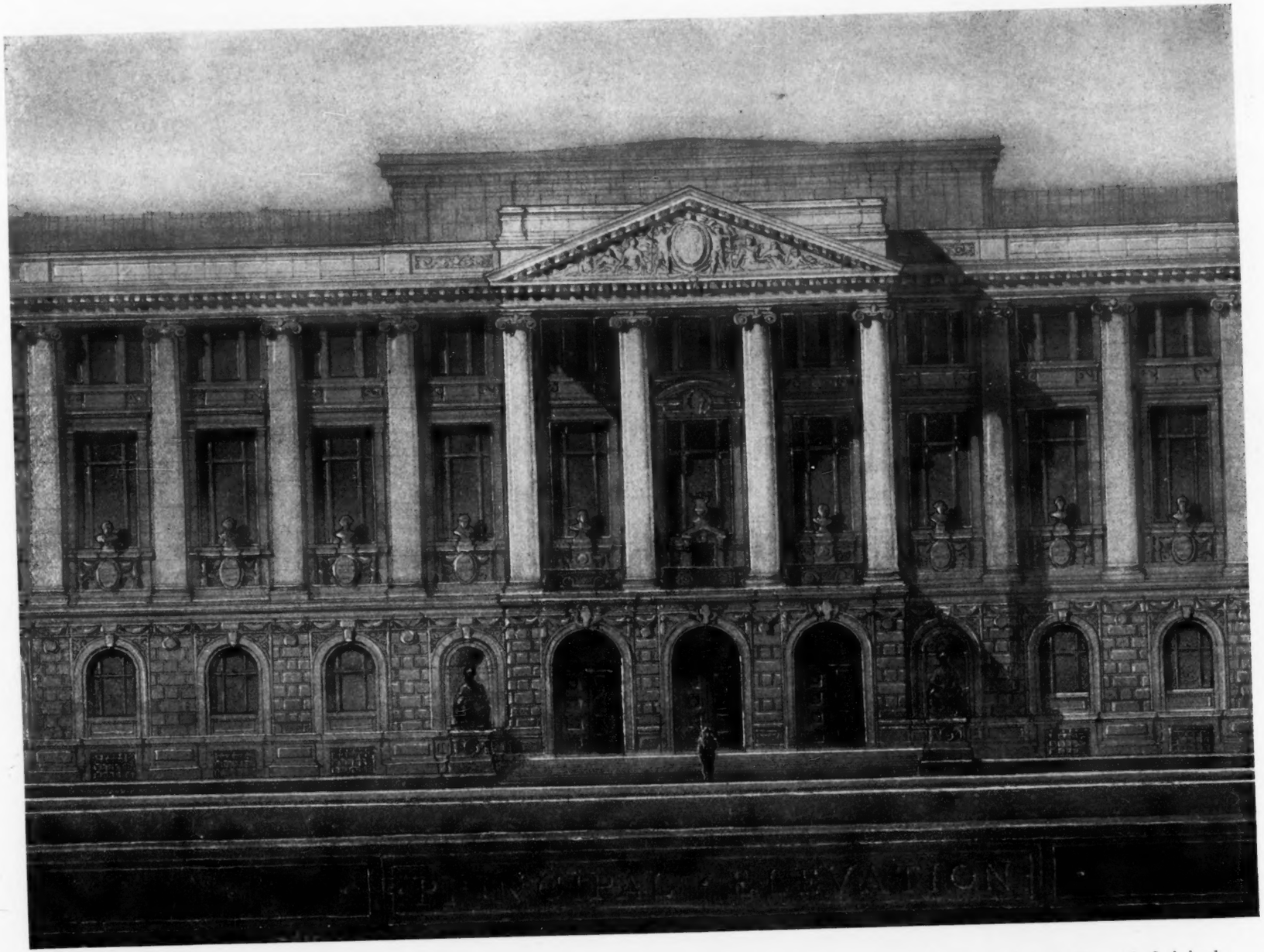


Figure 19. Portion of Competition Design for State Library, Sacramento, California. Reproduced at Actual Size of Original Drawing. Scale $\frac{1}{8}$ in. = 1 ft. Francis S. Swales, Architect.

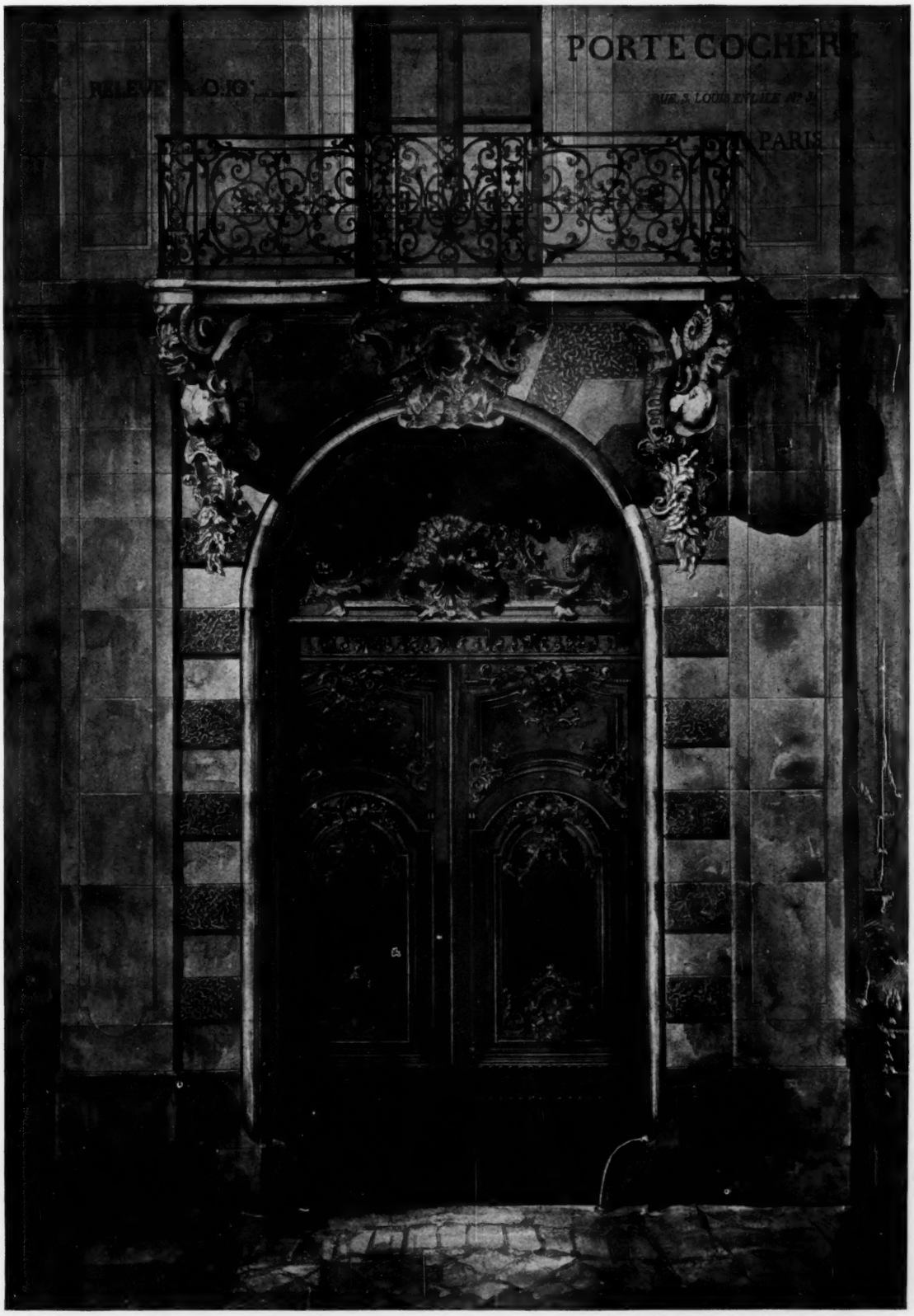


Figure 22. Record Drawing of Old Porte Cochère, Paris, by M. Charles Montaland. Reproduced from a Large Drawing, the Original Being One-tenth the Size of the Porte Cochère.

Figure 19. Portion of Competition Design for [illegible]. Drawing. Scale ¼ in. = 1 ft. Francis S. Swales, Architect.

pencil retouching. It would be difficult to find a better example of technical excellence as to both line and wash work, or a drawing showing greater knowledge of the best conventions of academic presentation. To *copy* such a drawing—or portion of it—would afford opportunity for discovery of mistakes of technique. To render a new subject creates the additional chance of mistakes in composition of values. As between poor technique and poor composition of values the former is more easily endured. Before considering the technique it will be interesting to note the composition of color values (Figure 15).

The design was for a building of white marble with a copper roof, and surrounded by a retaining wall and balustrade of pink granite. There were, therefore, three principal horizontal bands of dark or color—the foreground wall, the main roof, and the roof of the reading room in the distance. The darks in the foreground and main roof are of about equal intensity and extent. The dark of the more distant roof is less in both intensity and extent, but mainly it is *lighter* than the darks of the foreground. There are also four principal planes of light: the entrance portico which advances from the main wall, then the main wall of the building; thirdly, the pediment behind the ridge of the main roof, and, fourth, the wall of the reading room in the distance.

Since the darks become lighter and the light planes darker as they recede, the contrast between the principal color masses is greatest in the foreground and least in the most distant parts of the building. On this theory, a very distant wall, roof, or even the atmosphere would become a grey half-tone. Any half-tone in the white walls would be *lighter than the atmospheric* half-tone or background, while any half-tone in the roofs would be darker. The theory determines and answers one of the most important questions which arise in nearly all renderings: "Should the window openings be darker or lighter than the background?" (It should be noted that under any circumstances, in order to give solidity to the building and prevent the windows from appearing as mere holes in a thin wall, they should always be decisively *darker or lighter* than the background of the picture—never the same tone as the background.)

An examination of the technique of the wash-work discovers that a great many light washes were employed. A very light tone was spread over the entire drawing. A second wash covers all parts except a mere line running along the top of the balustrade in the foreground and on the levels of landings of steps. (See Figures 16 and 17.) A third wash covers the whole drawing except the above reserved parts and spares the projecting arcaded, entrance pavilion; a fourth, spares all the above mentioned parts and also spares the columns and is graded to nothing at the plinth course below columns; and so on. The washes are applied one after the other for each successively darker part. In the original India Ink drawing, the foreground does not appear so strong as in the printers' ink reproduction; but the edges of six bands, showing the use of at least six light washes, appear about ⅛ inch apart across the full width of the drawing. Points to note about this drawing are the sharp intensifying of shadows of window reveals at their narrowest points and the quick grading-out as they widen. The lighting within the large shadow at the right of the entrance projection (see Figure 16) especially under the main cornice, is to mark the secondary and very slight projection. A point to criticise about this shadow in particular is its illusory character. It does not help in the study of the design. A darker shadow might have called attention to the danger of a projection too great for satisfactory perspective effect in the executed work. But as an example of beautiful presentation and unflagging care it is a drawing that leaves nothing to be desired.

Figure 19 reproduces at the actual size of the original a portion of the drawing of which Figure 18 shows the general effect. It is the familiar American British-derived type of the long façade with the pseudo-classical portico projecting therefrom. The portico is the *clou* of the rendering. To give it the effect of projection a strong wash must be passed over everything behind it. The strength of a single wash on this drawing is about equal to five of the washes used for Figures 15, 16 and 17. Dark washes are, however, more difficult to run than light ones. Their tendency to give hard edges makes the use of *piquage* a necessity. The retouching with Chinese white and dark India Ink while giving sharpness and brilliancy to a drawing which can be read easily by an observer standing four or five feet away—as in the ordinary competition exhibition—must, however, give up the expression of delicacy or charm of detail. Such matters are, however, of relatively small importance compared with those of void and solid in a monumental building. When the voids are large, in order to prevent the solids from appearing too thin, too much contrast must be avoided, and a dark tone of rendering becomes necessary for the wall surface and consequently for the whole building. As a rule a dark treatment of the building requires a strong background and a still stronger foreground. Heaviness and density can be avoided by cooling the background washes with blue and warming the foreground with red or yellow.

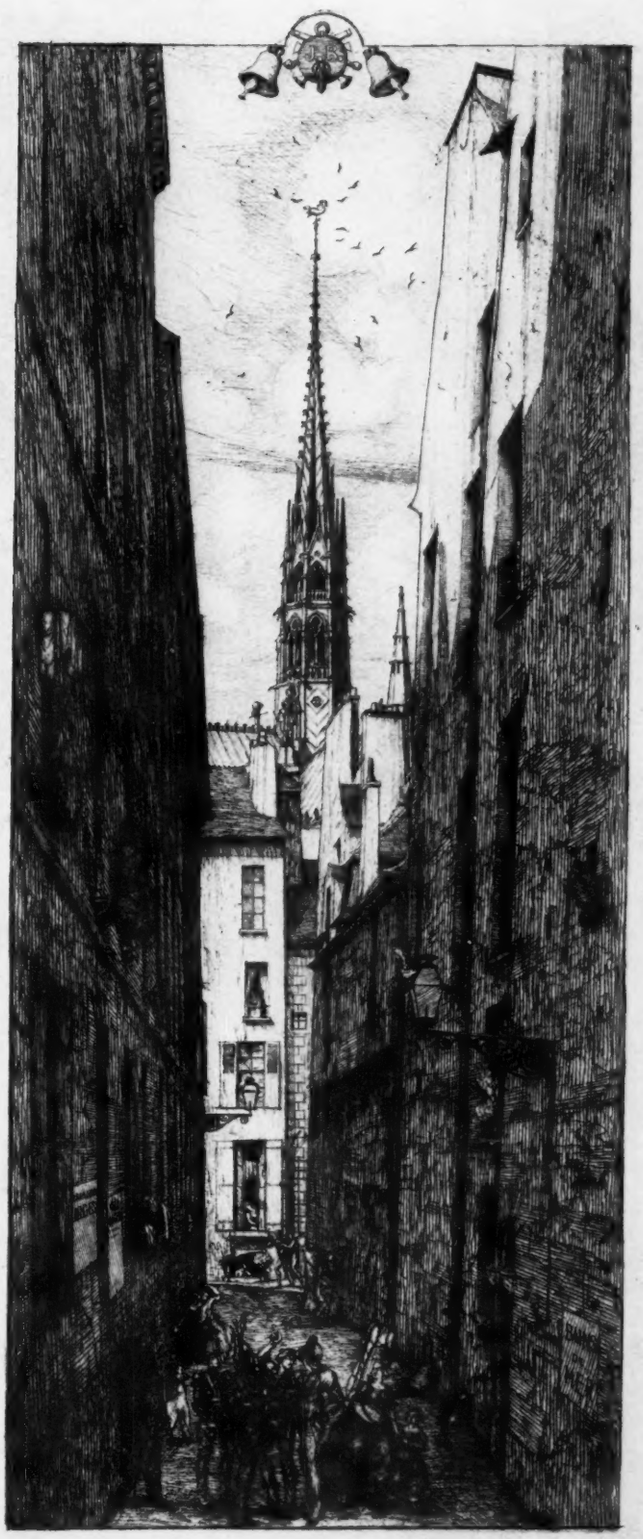
When ornamental and delicate detail is essential to the design presented, and the scale of the drawings is small, it may be safely stated that the fewer and lighter the washes, the better. Figure 21 is a reproduction, at the actual size, of the competitive drawing for the Century Theatre, of a masterly piece of line-drawing by Mr. Albert D. Millar. The small reproduction (Figure 20) indicates a fault in the wash rendering of the window openings being too nearly the same value as the atmospheric background, causing the appearance of there being no building behind the façade. Such extreme finesse of line technique admits of but few washes. Otherwise the finely indicated ornament would disappear under repeated washes or would become hard and exaggerated if any attempt were made to spare highlights and indicate shadows. Only two washes, each

(*Continued on page* 66)

Courtesy of the American-Hellenic Society *Frederick Boissonnas*

TEMPLE OF NIKE APTEROS, ACROPOLIS, ATHENS

The plate photograph reproduced on the opposite side of this sheet is one of the finest presentations of the Temple of Nike Apteros, on the Acropolis at Athens. This beautiful temple was built in 435 B. C. After its partial demolition is was found possible to reconstruct it with the original stones.



UNIV. OF MICH.

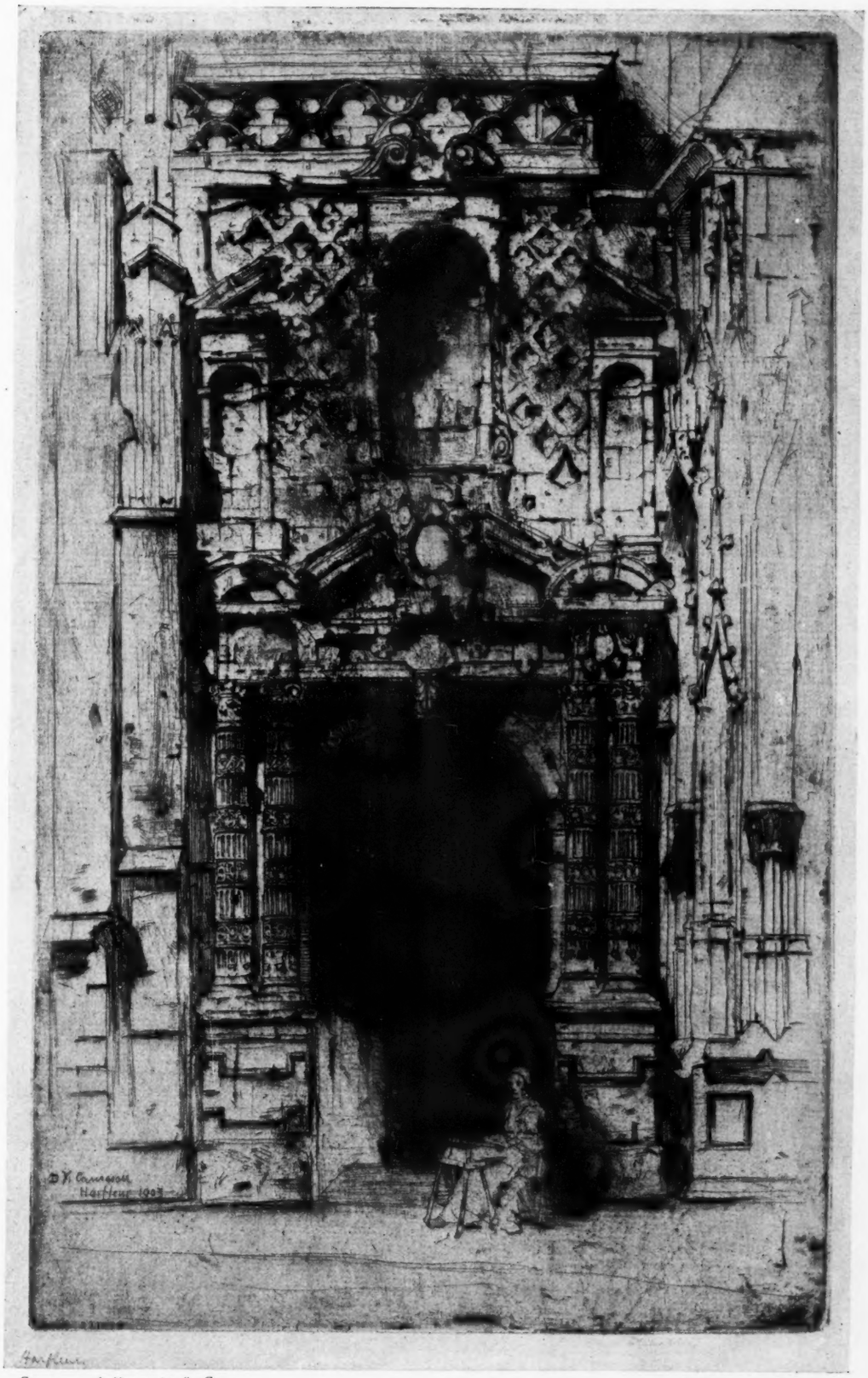
Courtesy of Kennedy & Co.

RUE DES CHANTRES
FROM AN ETCHING BY CHARLES MERYON

On the other side of this sheet is reproduced one of the series of etchings which Charles Meryon made for the purpose of preserving a record of the Old Paris for which he had a great affection—the Paris that was soon to almost disappear with the "Hausmannizing" of the city. Charles Meryon was born in Paris, November 26, 1821, and died in a madhouse at Charenton in 1868. He was a son of Charles Lewis Meryon, an English physician of note, and Pierre Narcisse Chaspoux, a dancer at the Opera in Paris.

LANDSCAPE FANTASY IN PENCIL BY THEODORE T. DE POSTELS

A delightful bit of expression in pencil is the landscape fantasy by T. de Postels, reproduced, with only slight reduction, on the other side of this sheet. This is one of a number of fantasies materialized by Mr. de Postels as a relief from his longing for his native Russia during the first winter of his residence in this country. These are true fantasies; they express moods and memories and do not represent any particular bit of nature. This drawing epitomizes one type of Siberian landscape, and is remarkable for its sense of space and quiet. These fantasies are especially interesting because of the contrast they present in comparison with his thoroughly architectural renderings of buildings.



Courtesy of Kennedy & Co.

HARFLEUR
FROM AN ETCHING BY D. Y. CAMERON

The etching "Harfleur" reproduced on the other side of this sheet is one of the finest of the many etchings of architectural subjects made by D. Y. Cameron, who is one of the most distinguished of Scottish artists, painter and etcher. Cameron's etchings are very highly prized by collectors for their pictorial and technical excellence as well as by architects for their sympathetic rendering of charming subjects.

DESIGN IN THE DRAFTING ROOM, PART I

BY JOHN C. BREIBY

This is the first installment of a new article in which Mr. Breiby goes back of the subject "The Making of Working Drawings," which he has treated in recent issues, and discusses the preliminary study that precedes the beginning of the working drawings. Mr. Breiby is a member of the organization of Carrère & Hastings, Shreve, Lamb & Blake.—ED.

FREQUENTLY the architect is asked this question: "How do you plan and design?" The question is simple enough, but the answer is far from being simple. Perhaps the only answer can be, "by clear thinking and self-governed expression of the imagination."

In using the term design, the study and working out of plan and elevation is to be understood collectively. Designing is somewhat apart or foreign to that which is theoretical or experimental, for the fixed basic laws guiding human life, habits or modes of living are the prime factors from which the architect has to build up his work. As the individual is clothed with suitable garments of usefulness and adornment, likewise, society must be clothed. A family is clothed by the home; a congregation has, as its covering garment, a particular church building; our laws compel the provision of necessary covering and protection for the children, by the erection and upkeep of our public school buildings. Institutions, office buildings, buildings of state, industrial structures—in short, all buildings wherein society assembles for any purpose—are all covering garments of usefulness and adornment, which form one of the principal fundamental pillars of civilization.

The work of the architect is to clothe and array society by designing and guiding the erection of buildings. The burden which the architect must carry is heavy; his responsibilities are many; his mind and body must always be ready to undertake a severe task; his joy must be in the knowledge that the work must be done well.

It must be remembered that public congestion, confusion, and at times even accidents or panics with resulting loss of life may be caused by a faulty plan, and in such an event the architect is guilty.

The action of the elements, such as fire or storm (unless such are calamities, generally termed as "Acts of God") must be foreseen and guarded against by the architect. Truly enough many building ordinances have been formulated and are enforced to insure public safety of buildings, and able specialists have given rules and formulas for the strength of materials used in building construction, which all, of course, assist the architect to safeguard his work. The architect must, of course, be governed by the building ordinances—where such

Figure 3. Study for Residence at Cold Spring, N. Y. E. V. Meeks, Architect.

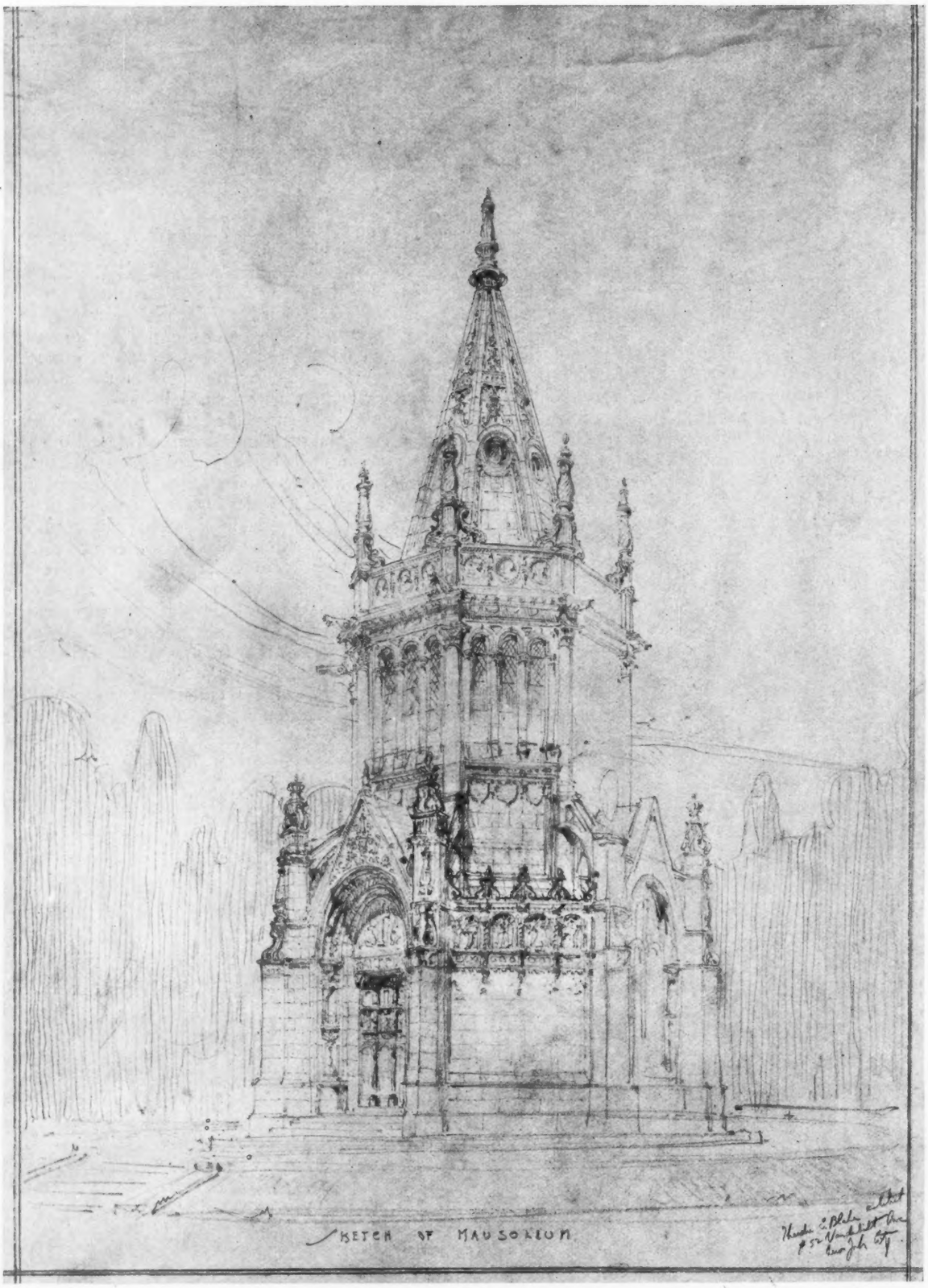


Figure 4. Sketch of Mausoleum. Theodore E. Blake, Architect.

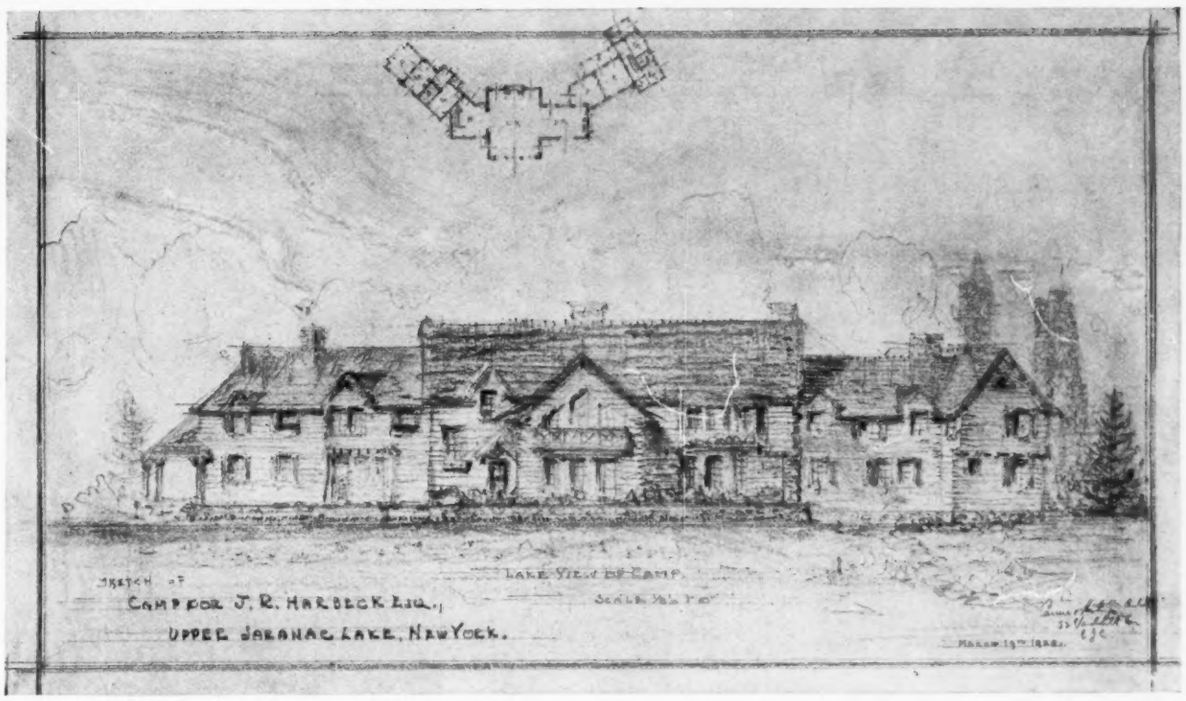


Figure 2. Sketch of Camp for J. R. Harbeck, Esq., Upper Saranac Lake, N. Y. Carrère & Hastings, Architects.

are in force—and work within the factors of safety set down for the strength of material; but he must even go beyond such regulations, if necessary, to make his work successful and pleasing. In localities where no building ordinances are in force or where they are of an indifferent kind, it is up to the architect to guard his own work well. It might be said, whether or not ordinances are in force, that for the proper design and erection of the executed work, the architect is the administrator of the law, according to his own conscience.

As the endeavor of this article is to outline the work of design, and especially design in the drafting room, the work, of what is known as the practical side, will be considered only as it affects design. In this sense the word practical, is misleading for all design must be practical, to be successful.

In the foregoing paragraphs it has been set forth, what the work of the architect is, and what his responsibilities are—too much stress cannot be laid thereon. To repeat, the work of the architect—which, of course, includes that of all his assistants, such as designers, draftsmen, engineers, etc.—is to understand the desires and requirements of those by whom he is commissioned to work. It is most important, however, for these desires and requirements to be known and understood by those whose task it is to prepare the original scheme or design.

When a problem concerning the erection of a building is given to the architect for solution, he must live the life of the person or persons by whom he is engaged and must live in the very structure which he purposes to erect. In designing a theatre, the architect must have the manager's viewpoint. He must see the audience from the stage, as the actor sees it. He must see the actor from the house, as a part of the audience, and so on, for every problem he undertakes. The life of the banker, the railroad official, the dweller in the cottage, is all the life of the designer, according to the problem to be solved.

Good architecture is the result of good design. The particular architectural style period or character which is considered best to be guided by, is a matter of absolute personal feeling. The designer, however, must work according to the character of the building and feel the spirit of the work.

The accepted general laws of mass, proportion, scale, color, etc., are traditional results of that which is good and pleasing to see. It is well to abide by such laws; to depart therefrom is to play with fire. It is quite safe to say, that if an entirely new type of architecture is to be brought to life, this cannot be done "overnight," nor can the individual depart from traditional effects, and burst out with an expression of, "I have it." Traditions do change, as time goes on, with the humor of the people. Changes are gradual and progressive, and must be so to live.

An example of the change and development of present day architecture has been seen in the progress of design in the modern "skyscraper." As the occasion or popular demand arises, characteristic and good architecture will be ready to meet the call, and the result will be good.

To return to the subject of design in the drafting room. Study, good books, and free use of the pencil are the three important requisites. Study

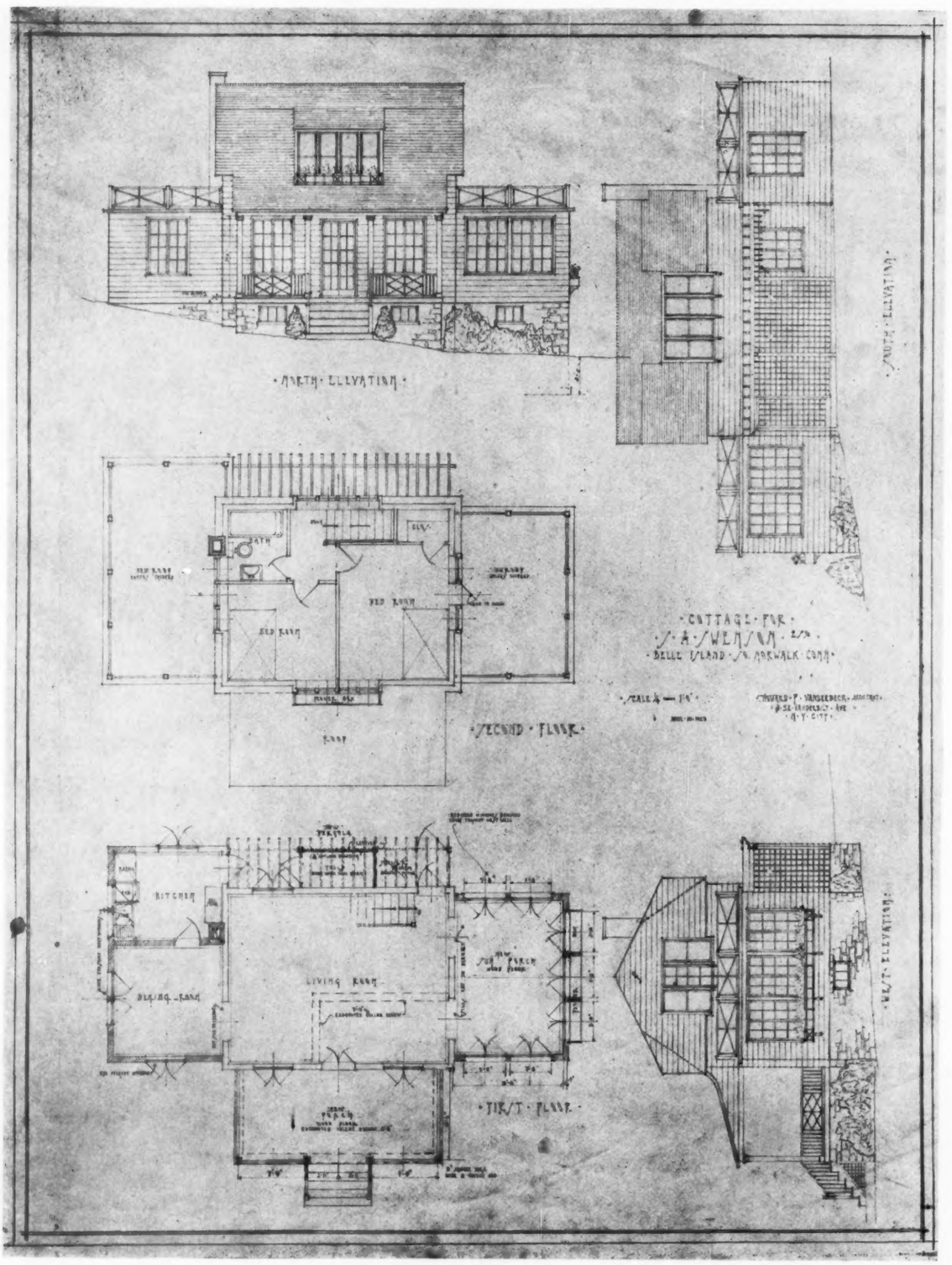


Figure 5. Cottage for S. A. Swenson, Esq., at Belle Island, South Norwalk, Conn. Howard F. Vanderbeck, Architect.

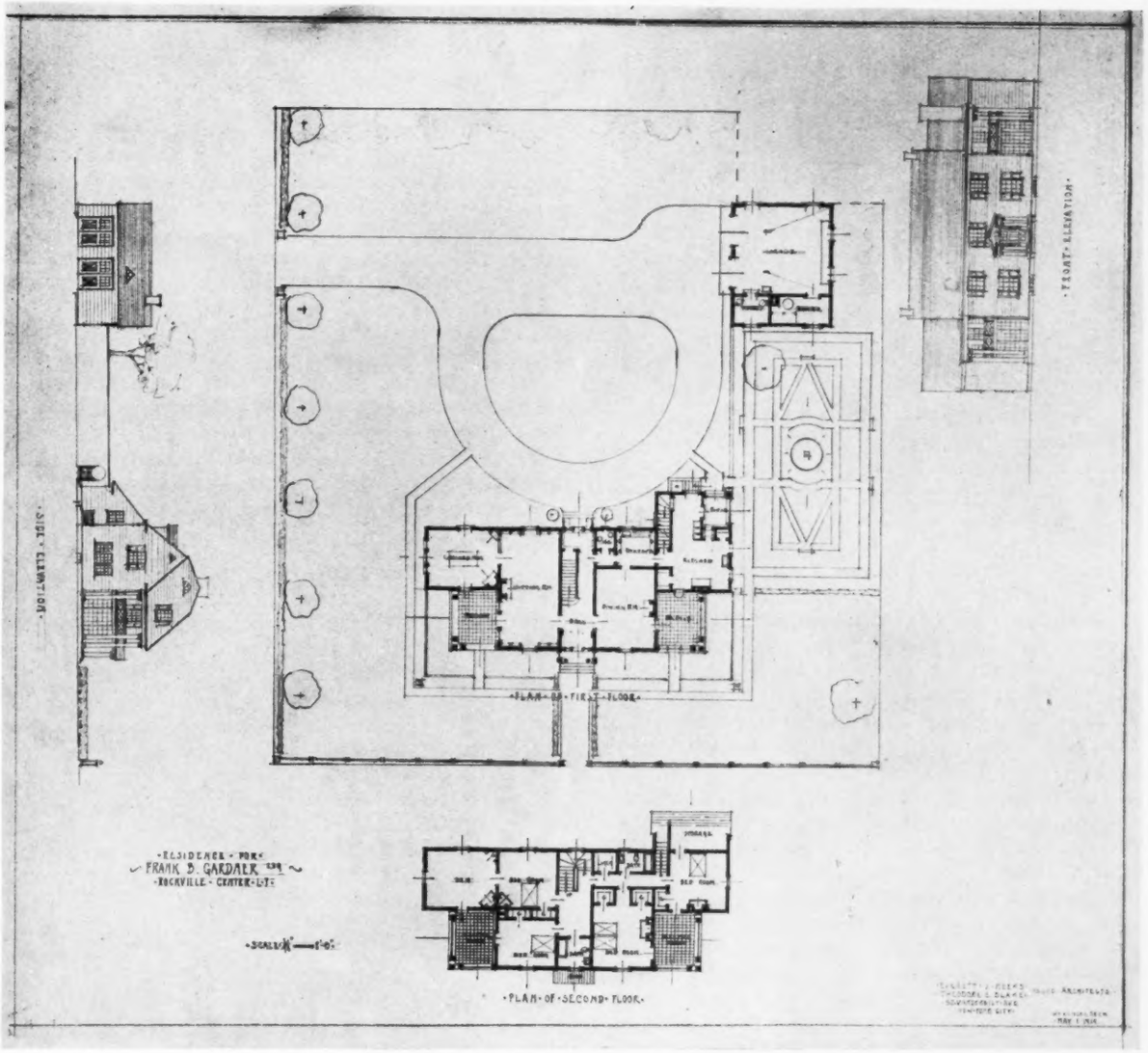


Figure 1. Residence for Frank B. Gardner, Esq., Rockville Center, L. I. Everett V. Meeks and Theodore B. Blake, Associate Architects.

every problem. Search its meaning. Live its life according to the requirements thereof. Look at books and plates. Good books are the storehouse of plenty—let the "pictures" therein imprint themselves upon the mind, thus providing an ever ready encyclopedia of mass, motif and detail. Free use of the pencil is the draftsman's violin bow. Use it with the certainty of strength or with the touch of delicacy. Make every line therefrom count. All of what has been said is old, and has often been told.

Design in the drafting room does, in a measure, differ somewhat from design as studied and developed by the many excellent architectural courses at universities and schools. It will not be necessary to mention the value of such academic training, nor to call to mind any particular method of study by the student. Perhaps the very difference between the design of the drafting room and design of the school, can be better expressed in saying, that after the architectural school student enters into the actual practical working ways of the architect's business office (it is a business and an exacting one), the work is measured in terms of dollars and cents. The *Programs* and *Problems* become stern realities; "Points of Poché" become actual pillars of stone and brick, costing—in money—so much, or so much. This must not be taken, however, to mean that the practical and working design of the drafting room is only to be measured by scales of cost. The work is delightful and the student becomes not only a better student, but also an expert specialized workman.

The drawings illustrated herewith are what can be called "pencil study sketches."

(*Continued on page 66*)

ARCHITECTURAL SUPERINTENDENTS MANUAL

BY FRANKLIN J. WARD

THIS is not an encyclopedia of building. It is just a little booklet to assist the young superintendent, who is generally taken from the drafting room. A few years' experience will teach him what many before him have learned. In the meantime, a little advice may help. There will always be more to learn, but most problems are solved on principles which should be learned early in the work.

Parties Concerned

The *Owner* spends the money. He is entitled to a fair equivalent for it.

The *Contractor* does the work. He is entitled to a fair payment.

The *Architect* is employed and paid by the owner, and yet he is expected to see that both sides get fair treatment. He is in a difficult position, and the high respect paid to the profession is testimony to the general high quality of architects.

The architect's *Superintendent* is the employee and representative of the architect. (See that you represent him honorably.) He may have full detailed instructions, or he may be allowed to run the work as he will. As an employee of the architect, he stands between the owner and the contractor, and frequently the smooth running of the job and the satisfaction of all concerned depend on the superintendent's tact and ability. His work is principally to inspect the work, and see that the plans, specifications and instructions are properly and honestly carried out. Sometimes he can assist in planning ahead and seeing that coming work is taken care of.

Sometimes a *Clerk of the Works* is employed. He is simply a superintendent spending all his time on one job, and consequently able to attend to it in more detail. His salary is usually paid by the owner, through the architect. Frequently a beginner is made clerk of the works, and an experienced superintendent visits the work occasionally.

If a *Consulting Engineer* is employed, his standing is that of a representative of the architect in his particular field.

The General Contractor's representative at the work is sometimes called the *Foreman*, but more often *Superintendent*. He may have full authority, attending to planning the work, employing labor, ordering materials, and bossing subcontractors, or he may be little more than a clerk, while the contractor does most of the head work in his office.

To call both the architect's and the contractor's man "superintendent" is confusing, but it is done, nevertheless. In what follows, the references are to the architect's superintendent unless otherwise noted.

Each important trade will probably have a *Foreman* who will be his employer's representative for that trade.

An *Inspector* is one who inspects the work, or some part of it, to see if it meets the requirements, but without any thought of planning ahead, and frequently without regard to price. Inspectors are frequently thought of as a nuisance, as they are generally considered critical rather than helpful; but it must be remembered that that is what they are employed for, and that if all engaged in building were honest and competent, inspectors would hardly be necessary. If the superintendent will treat inspectors with fairness and respect, he will generally find that they give him little trouble, and will often go out of their way to help him.

General Conduct

No one knows everything. The superintendent is frequently asked to decide questions about which he knows little or nothing. Usually appearance is in question, frequently construction is involved. It may be the position of some outlet, whether a pipe should be concealed or exposed, or some similar question. Usually the workmen can state the construction requirements, or the customary way of doing the work, but a workman usually sees only the work of his own trade, and the requirements of other trades and the appearance hardly appeal to him. Frequently the superintendent is puzzled to decide what should be done, and unfortunately few rules can be made to help him except to use a large amount of common sense.

One good rule to remember is "Safety First." That is, do not take chances with the strength of materials, or pipes freezing, or wires crossing, or flues touching woodwork, or similar forces of nature; for if this kind of mistake comes back on you, everybody, particularly the owner, will blame you, and you will get little consideration for the excuse that you were trying to improve the appearance, or save money.

In considering appearance, try to remember that you are only the superintendent, and try to make the appearance as the architect would have it, rather than according to your own ideas.

Sometimes, unfortunately, it is necessary to reject work. Most of us do not like to do it, especially after it is in place. Be as fair as you can, but remember that the owner should get what he has contracted for. Remember that the builder can appeal to the architect if he does not like your decision. In fact, it is sometimes advisable to ask him to appeal, for you will then lose less respect if you are overruled, and win more if you are not.

Be careful in expressing opinions to the owner, whether of construction, appearance, cost, or anything else. Unless you are sure it is so and approved by your employer, state it clearly as your personal opinion, based on such information as you have, but if more accuracy is wanted, you will ask the office to investigate and report.

Sometimes you will hear the owner or the contractor criticise the design, the construction, or even the architect himself. If circumstances seem to warrant repeating this to the architect, do so. But if not, do not repeat it to anyone else.

Many trade rules and customs have grown up. They will be quickly called to your attention if you try to violate them. Some of them may seem wrong. Nevertheless, try as far as possible not to violate them, for they are the fences which have been built to make building an orderly affair instead of a chaos, and they must be respected until better rules are made, unless one is ready for trouble.

As a general rule, the architect cannot recognize Union Labor as such, for his function is to get the work done properly, and the builder has to look out for who does it. So be very careful about interfering in labor disputes, and only do so when there is something at stake which will affect the owner's interests.

Always be ready to listen to information and advice from all workmen. They have learned many things you have not. But in giving orders, talk direct to the foreman or superintendent, or if compelled to direct the men, tell the foreman of it at the first opportunity. Firstly, it is the foreman's right to get directions, and secondly it holds the respect of the men under him and so makes the work go better.

Do not express criticism of the men, particularly to their foreman or employer, until you are ready to follow it to the end. It is almost certain to get back to the man, who will probably make things unpleasant for you.

Be as pleasant as possible in your dealings. A grouch or brute is never liked. You will sometime need all the friends you can make, and unkind conduct does not make friends. But do not be too familiar, or you will lose the respect of the men, which you need.

Watch your step when you take anything from the builder or his men. There are a few recognized perquisites, like cigars or an occasional dinner, which generally seem to be understood as fair and harmless. These can generally be classed as of a temporary nature. But anything in the nature of a permanent gift is classed as graft, and while there are some who go deeply into graft, you may be sure, even if the motive of honesty does not control, that in the end a fair return is expected for all gifts, and no grafter has permanently prospered.

The builder is generally very careless with the drawings and specifications. The superintendent should make an effort to have them filed as orderly and systematically as possible. They should be kept up to date, and superseded ones should be marked *void* or destroyed. It will save trouble, for they will be more consulted if they are orderly and reachable, and fewer explanations and corrections will be needed. Of course the superintendent should himself know them as thoroughly as possible.

It is well to have one complete contract set separately kept intact for comparison against changes.

Records

The superintendent should keep some sort of a record of progress of the work. It may vary from a few notes in a diary to a complete daily report giving all details. But enough should be noted to be able to show, if a question should arise at some future time, "That is the state of the job at that date, and this written note confirms it." Frequently the architect or owner requires periodical reports. Particular points to be noted are:

Start and finish and interruptions of each principal trade. To this may be added, in more or less detail, what part of the building each trade is working in, and the state of each trade's work, or its percentage finished.

The weather, particularly if there may be claims for delay on this account.

Any fact which might cause delay to part or whole of the work, particularly if there is a time limit, whether it is something the owner or architect did or did not do, or some act of one trade which would cause delay in another trade.

Any fact about work which cannot be seen by a later inspection, or which might be questioned later, as that drains were put in, or chimneys or pipes tested, or anchors built in, etc.

Financial

The superintendent will frequently have to consider the cost of the work, even if it is only to report to the architect for his judgment. Extreme care must be used not to do or approve anything that will cause an extra without knowing where the money to pay for it will come from. A contract is usually for a definite amount of work, and whether for a fixed price or on a cost plus fee or commission basis, any work added will cost more, and the owner will usually want to know why. It is better to let changes be handled entirely by the architect's office, but if circumstances are such that a change is necessary and the superintendent must order it on the spot, he should either order it verbally (if the contractor will take a verbal order) and as soon as possible report it to the architect for confirmation, or he should give the contractor a written order somewhat as follows, sending a copy to the architect:

Re: Mr. Smith's Residence:

Mr. John Doe: You are hereby directed to put an additional drain at the south side of the house, the additional cost of this work to be reported to the archtiect as soon as completed.

William Roe, sup't.

If the work was required by the owner, as often happens, it is well to mention the fact in the order, and if an estimate is required as soon as possible, in the meantime going ahead with the work, the order should so state. If an estimate is required before starting the work at all, the matter is usually handled by the office, and all the superintendent has to do is to ask the contractor to send an estimate.

There is often much trouble from the owner giving orders direct to the contractor to do work, fre-

quently without even asking if it will cost more. Unless the superintendent has full authority from the architect, he had best not meddle with these orders, but ask the contractor to report them to the architect immediately. Everybody—architect, superintendent, and contractor—should use all the diplomacy they can to induce the owner to give his orders through the architect, as that is the only way to keep accounts straight, and usually the owners who are most careless in asking that extra work be done are the very ones who complain most when they have to pay for it.

The superintendent will usually have to check or approve the applications of the contractor for payment. If the contract is for a fixed sum, it is advisable to ask the contractor at the beginning of the work for a division of his contract (usually by trades) with the amount allowed for each, and it is then much easier to estimate the percentage of work done in each trade, and thus get the total amount of work done and money due. The contract will state what percentage of work done is to be paid for in each payment.

The contract, however, does not always define what work should be paid for in these progress payments. Of course material erected in place should be, and as a general rule, material delivered at the site, but not yet erected, should be paid for as material, especially if it is usable only in that one place, as for instance, cut stone. If, however, it is material like pipe which might be delivered and collected on and then removed for use elsewhere, the superintendent should use judgment, or require a Bill of Sale if he thinks it necessary. Material still in the shop should not be paid for unless a Bill of Sale is given, as is sometimes done when the material is valuable or delivery delayed. A Bill of Sale looks about as follows:

"*Know All Men by These Presents* That I, Jn. Jones, of Smithville, for and in consideration of $100, the receipt whereof is hereby acknowledged, have bargained and sold, and by these presents do grant and convey unto John Doe, of 1 Broadway, N. Y., his executors, administrators and assigns, *One Thousand Brick* for the Residence of John Smith.

"*To Have and to Hold* the same unto the said John Doe, his executors, administrators and assigns forever. And I do for myself, my heirs, executors and administrators, covenant and agree to and with the said John Doe to warrant and defend the sale of the aforesaid brick against all other persons whomsoever. John Jones."

When the contract is on the basis of Cost plus a Fee or Percentage, the contract should state just what charges are to be included in the Cost, but if it does not, the following definition has been used for several years, and has not yet been questioned:

"The Cost of the work is to include the cost of all labor, materials, transportation, supervision, tools, insurance, traveling expenses, and all other expenses of completing the work, but not to include any charges for home office force or work in the office, or for supervision by members of the firm. Temporary equipment to be furnished at a price or rental, and proper rebate included for salvage thereon, as approved by the Architect."

In checking bills of cost presented by the contractor, the superintendent may find it a long and difficult task to check them properly, and no rules can be formulated, except to say that he has a right to require the bills to be in a form that will show that the expense has actually been incurred, and for that particular job, and there are no duplications. Vouchers, receipted bills, or affidavits may be presented. Unfortunately there is not even a uniform method of presenting costs. One contractor for instance may charge a flat rate of so much per day for carpenters, and another may charge it something in the following form:

Carpenter's time	$10.00
Compensation insurance 10%	1.00
	$11.00
Overhead 10%	1.10
	$12.10
Profit 10%	1.21
Total	$13.31

And sometimes the two forms may even appear on different parts of the same bill. Therefore much common sense must govern, rather than any definite rules. Remember also that all business is carried on largely on faith, and building is no exception, and if the bills are presented in such a way as to show there are no mistakes in them, the contractor should not be suspected of cheating unless there is some reason for it.

Occasionally, on cost plus work, it is necessary for the superintendent to watch and note the work done, material delivered, or time of men working, in order to be able to check the bills when presented.

Credits and extras submitted by the contractor are very difficult to check fairly. Almost always the owner, and frequently the architect also, think the credits are lower and the extras higher than they should be, or than they would be if outside competition could be had, and yet most of the time the contractor can and will show good reason for his figures. The contractor has the contract, and therefore the only thing that can be done, if the architect is convinced that the price is unfair, is to use all the persuasion possible, even to the threat of barring him from further work with that office. If the dissatisfaction is too great, the change may be abandoned, and the original contract carried out, or the change may be postponed until the contract is done, and another contractor can be employed.

There is perhaps no generally recognized principle of what makes a fair charge for changes, but the superintendent cannot go far wrong if he lays down the principles that extras should include all costs including overhead, and then 10% profit, and credits should be for the estimated net cost, allowing the contractor to keep his estimated profit, and

(*Continued on page* 61)

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RESULTS IN SANTA BARBARA SMALL HOUSE COMPETITION

THE following awards have been made in the Competition for the Best Design of a House to Cost Not More Than $5,000 conducted by the Community Arts Association of Santa Barbara, California: First Prize, $500, to Walter L. Moody; Second Prize, $200, to A. McSweeney; Third Prize, $200, to Leffler B. Miller. Honorable Mention with money prizes of $20 each were awarded to the following: Harrison Clarke, H. G. Lewis, H. S. Richmond, Everett R. Harman, L. Gail McCully. Honorable Mention without money prize was awarded to the following: Messrs. Murphy and Cullity, Frederick A. Eastman, Ted. Fletcher, Leffler B. Miller, Lee F. Fuller. *Hors de concours*, Leffler B. Miller.

In addition to the above awards by the Jury, a number of other meritorious designs were recognized by the award of a special mention by the Community Arts Association to the following: Geo. C. Anderson, Calvin M. Butler, K. D. Church, Rose Connor, R. H. Crawford, J. R. Daniels, M. M. DeAhna, Randall A. Duell, C. W. Lemmon, A. McSweeney, J. V. Mackay, A. D. Roberts, John E. Weaver, Paul R. Williams, W. Ray Winegar.

The Community Arts Association, interested in enhancing the attractiveness of the city, inaugurated this competition through its Plans Division. The competition was under the supervision of the Library and Exhibit Committee of the Association. Mr. Carleton Monroe Winslow, architect, Los Angeles, acted as consultant. The Los Angeles Architectural Club, through its President, Mr. Clifford A. Truesdell, Jr., appointed the three professional Judges, who were required to be members of the American Institute of Architects. These appointees were: Mr. Pierpont Davis, Mr. Sumner Spaulding, and Mr. Jesse Stanton. The two lay Judges were: Mrs. George Washington Smith, of Montecito, and Mr. Daniel Kirkhuff of Santa Barbara. The competition was open to anyone. Drawings were submitted anonymously.

After the awards were made, an exhibition of the designs was held at the Paseo de la Guerra, 21 East de la Guerra Street, Santa Barbara. The exhibition was open to the general public September 15-22, inclusive, and a gratifying degree of interest was manifested by the public. The report of the competition has been issued in the form of a brochure illustrated with reproductions of the designs which won the first three prizes. These designs are attractive and interesting and the association and all connected with the competition are to be commended not only for the worthiness of its purpose but as well for the admirable way in which it has been carried through.

BEAUX-ARTS BALL

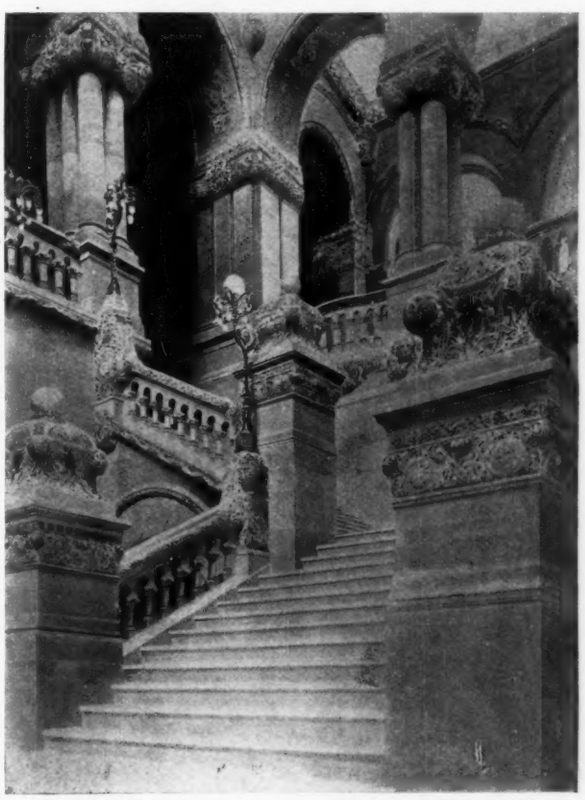
THE fifth costume ball given by the Society of Beaux-Arts Architects will be held at the Hotel Astor, New York, on February eighth.

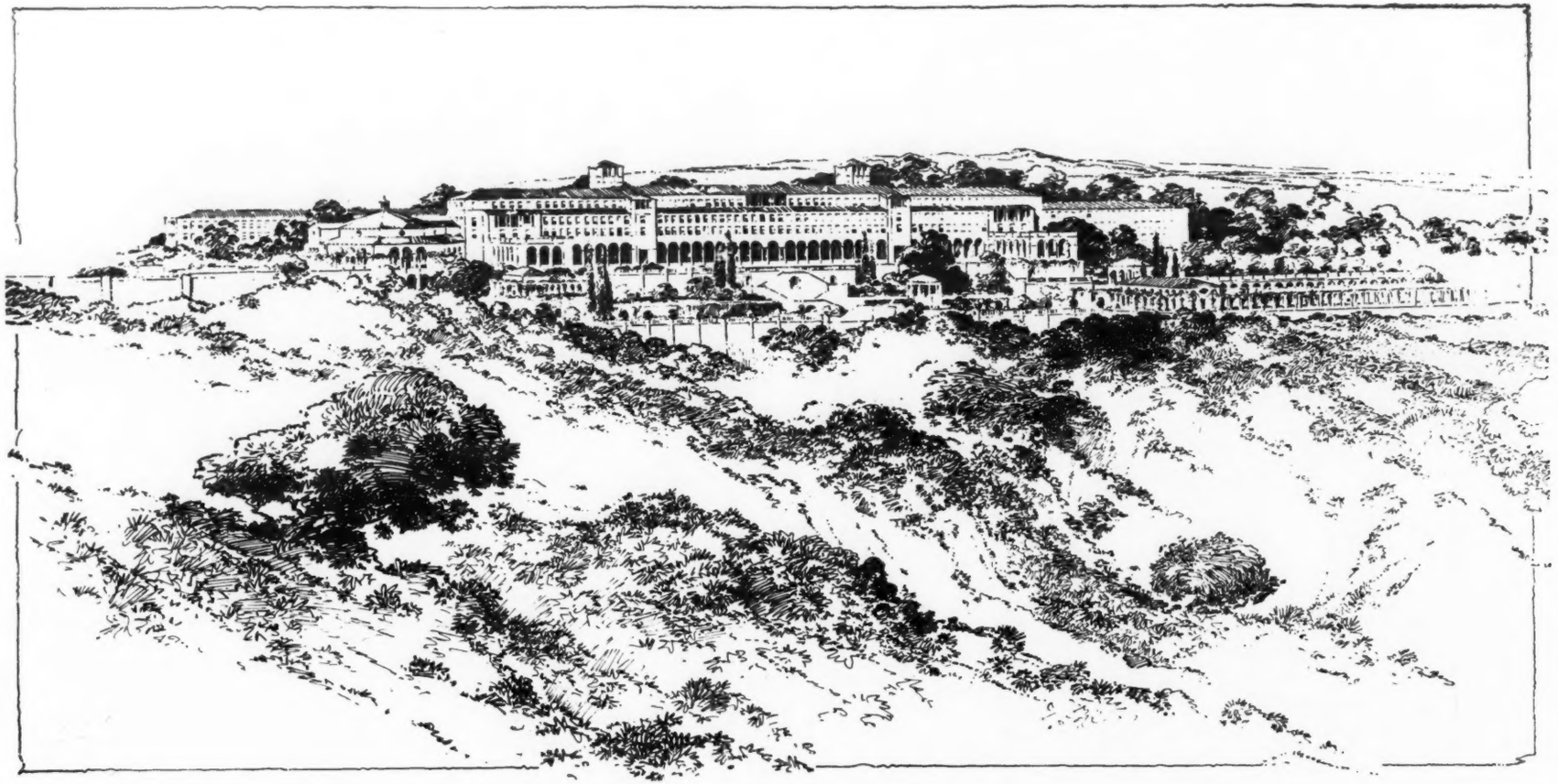
The proceeds of the ball are used to help along the educational work of the society, which includes the Paris Prize given annually to the student winning the competition and the work in ateliers and universites throughout the country where the program of projets issued by the Beaux-Arts Institute of design is used.

The ball of the Society of Beaux-Arts Architects has always been a most notable event, of great artistic significance as well as social importance. It has always called forth the earnest and most unselfish efforts of many of the ablest men in the profession, who have given much time and thought to its preparation.

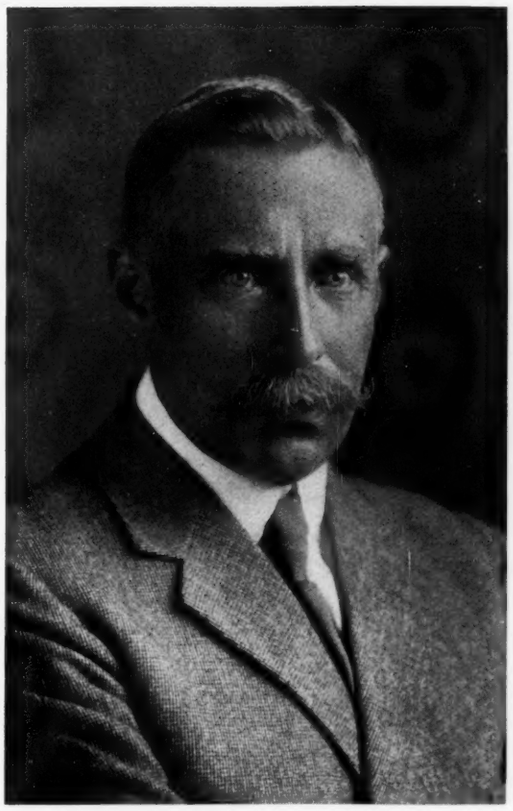
For the coming event, Mr. Whitney Warren is the honorary chairman of the ball committee and the members of the committee include Messrs. Kenneth M. Murchison, chairman; Donn Barber, W. Lawrence Bottomley, Robert W. Chandler, George S. Chappell, Frank Crowninshield, Bradley Delehanty, C. B. Falls, Howard Greenley, Ben Ali Haggin, J. Monroe Hewlett, Raymond M. Hood, Harry Allan Jacobs, Leo Lentelli, James W. O'Connor, Ronald H. Pearce, John E. Sheridan and Ferruccio Vitale.

Below is reproduced at reduced size, a wash drawing by Theodore de Postels which is a tour de force in simulating photographic quality in architectural rendering.





A Pen-and-ink Drawing by R. J. Lockwood.



THEODORE T. DE POSTELS

THEODORE T. DE POSTELS, one of whose drawings appears on the cover and who is represented by other drawings in this issue is making his home in New York where he is practicing as a delineator specializing in the making of renderings of architectural designs, work for which his natural ability and previous training have well fitted him. Mr. De Postels, a descendant of an old French family, was born in Petrograd, Russia, where he distinguished himself as an architect and professor of architecture.

Mr. De Postels received his higher education at the Imperial Academy of Fine Arts in Petrograd, graduating as architect-artist. The high standard and spirit of that institution and the influence of its professors, especially of the president L. N. Benois, laid a sound foundation for Mr. De Postels' work.

He spent some years in the office of L. N. Benois, who occupied a distinguished position as architect of the Imperial Court, and Mr. De Postels collaborated with him on the projects for many important buildings, including the Orthodox Cathedral in Warsaw.

Later Mr. De Postels became recognized as one of the most important architects of the Russian capital and built himself a home in the residental section of the Imperial Parks. He was Vice-President of the Society of Architectural Knowledge and a member of several important clubs. He also was in the service of the Imperial Court and of other institutions of the government.

He has travelled extensively in his own country, made nine tours of western Europe including Italy, France and England. He first visited the United States in 1900. He made two later trips from coast to coast and made prolonged visits to California and Florida.

In 1918 Mr. De Postels went to the South of Russia, the Krimea and the Caucasus, where he studied local conditions and the possibilities of the development of garden cities and health resorts. The promising activities in this direction had to be abandoned because of the political situation. On his way West he passed through Constantinople where he met an opportunity to plan the layout of a new large section of the city, but this project also had to be temporarily given up because of the instability of conditions in the Near East. After a stay in Switzerland he came to New York.

SAN FRANCISCO ARCHITECTURAL CLUB

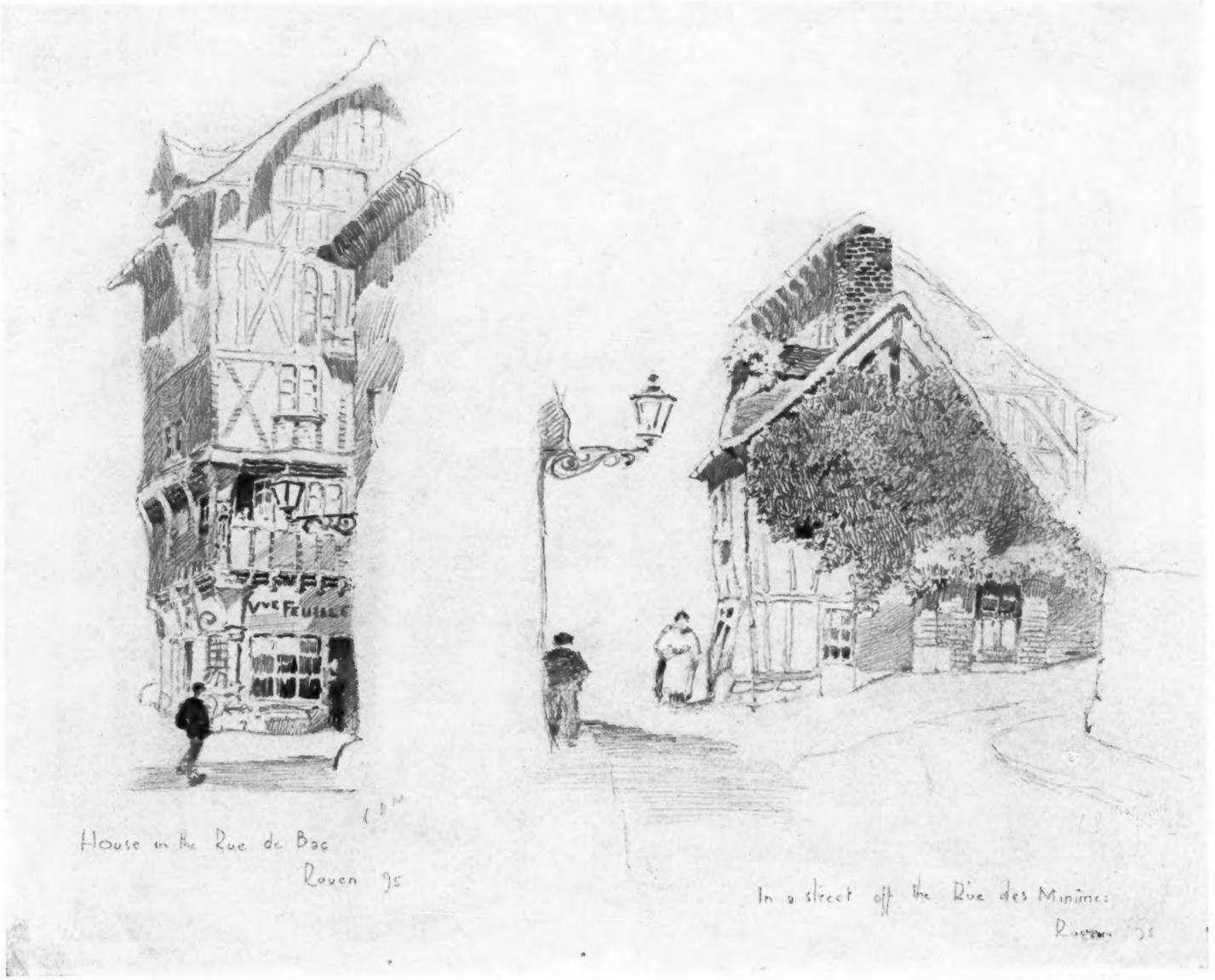
THE Twenty-first Anniversary Banquet of the San Francisco Architectural Club held in the Plantation Room of the Palais Royal on Friday, September 28th, was a great success, and one of the most pleasant and enjoyable of any event sponsored by the Club in recent years. It demonstrated that the Club, which suffered a setback during the late war, is again coming into its rightful place among the professional clubs of San Francisco.

The banquet, which was given in honor of the Charter Members, was attended by 70 or more. The Charter Members present were August G. Headman, Arthur E. Bugbee, Harry E. Nye, P. Brouchoud, George Wagner, Arthur T. Ehrenpfort, and John H. Ahnden. Those Charter Members who sent regrets were H. M. Smitten, F. A. Farnkopf, A. O. Johnson, Albin R. Johnson, E. G. Bolles and H. G. Corwin. The Honorary Members attending, who were also invited guests, were: John Bakewell, Jr., Arthur Brown, Jr., and Clarence Weed. Those Honorary Members who were unable to attend and sent regrets were George W. Kelham, and John Reid, Jr.

President Mark T. Jorgensen, after offering a toast to the guests of the evening, introduced Mr. Headman, who acted as spokesman for the Charter Members. In reviewing the early history of the Club, Mr. Headman sprung a surprise on all by producing a record book containing the original minutes of the first meeting of the San Francisco Architectural Club in the handwriting of George Wagner, then acting Secretary, which was held on September 28, 1901. As Mr. Headman pointed out this so-called 21st Anniversary Banquet was in fact a 22nd Anniversary Banquet. These minutes were presumed to have been destroyed in the fire of 1906, but were only found by Norman Mohr, Secretary at that time, two days previous to the banquet among some old papers which he had saved from his office during that great conflagration. Interesting talks were made by Arthur Bugbee, Harry Nye, George Wagner, A. T. Ehrenpfort, John Bakewell, Arthur Brown, Clarence Ward, P. Brouchoud, John H. Ahnden, and a number of past presidents of the Club.

Edward L. Frick and Ernest Weihe, patrons of the Atelier, spoke of the progress now being made in that class, and displayed much enthusiasm for its future. It was when Mr. Weihe suggested that it would be an excellent thing if the Pacific Coast Scholarship could be revived, that things took a turn which was entirely unexpected, but which added greatly to the enthusiasm of all. Mr. Ward immediately arose and started such a fund with a very liberal contribution himself. The response was instantaneous, and contributions came so quickly that the Secretary experienced difficulty in keeping account of them. In a brief time over $1,600 was subscribed. President Jorgensen then appointed a committee of five consisting of Clarence Ward, George Wagner, August Headman, John Bakewell, Jr., and Arthur Brown, Jr., to work out further necessary details in connection with the Scholarship which will be given at the close of the 1923-24 Atelier Season. Those contributing were as follows: Clarence Ward, George Wagner, August Headman, John Bakewell, Jr., Arthur Brown, Jr., J. F. Cronin, Arthur S. Bugbee, T. L. Pfleuger, A. R. Williams, Fred Kramer, Oscar Mohr, Lloyd Cole, James S. Cole, Edward Flanders, A. A. Voisin, H. Villalon, W. G. Pigeon, Ernest Weihe, W. Dunnavant, Wm. Watson, F. L. Frick, Harry E. Nye, Mark T. Jorgensen, H. Michaelson, W. Klahn, Fred Munk, Jr., Wm. Dreusike, Felis Raynaud, Chris Mueller, A. Chapman, Geo. W. Kelham, Wm. B. Faville, and Edward Eames.

(*Continued on page* 55)



Pencil Studies by C. D. Maginnis.

SAN FRANCISCO ARCHITECTURAL CLUB

(*Continued from page* 53)

An artistic souvenir menu designed by Edward Eames and contributed by the Standard Blue Print Company through J. F. Cronin was placed at each plate. The Charter Members were each presented with neatly engraved certificates of Honorary Membership and a key to the Club. Among the toasts offered by Mr. Headman was one in honor of those Charter Members who have passed away. The success of the affair was due to the untiring efforts and zeal of Wilton Smith, Chairman of the Entertainment Committee, and Mark T. Jorgensen, President of the Club.

The Charter Members of the Club are A. O. Johnson, August G. Headman, H. M. Smitten, George Wagner, H. G. Corwin, M. A. Sheldon, P. Brouchoud, H. E. Nye, F. J. Reinhardt, Wm. B. Betts, Arthur S. Bugbee, J. H. Ahnden, A. R. Johnson, F. A. Farnkopf, A. T. Ehrenpfort, E. G. Bolles, Fred C. Lebenbaum, T. Bearwald, and E. B. Scott. The two last named are deceased. All have signified their intention of being present, one coming from Stockton and another from Los Angeles for the event. Mr. August G. Headman acted as spokesman for the Charter Members, and gave an address on the early history and organization of the Club.

The Honorary Members of the Club invited as special guests are Cass Gilbert, Irving K. Pond, Clarence R. Ward, John Reid, Jr., George W. Kelham, John Bakewell, Jr., Arthur Brown, Jr., and John Bauer. Messrs. Reid, Kelham, Bakewell, Brown and Bauer were all elected to Honorary Membership at a recent meeting of the Club.

A very interesting excursion was made to the plants of the Paraffine Companies, Inc., at Emeryville on last Saturday, September 15, by members of the Club as guests of the company. Upon arrival at the plants a delightful luncheon was served, after which the guests were conducted through the plants where they learned much regarding the manufacture of paraffine products.

Edward L. Frick is now patron of the Atelier and will continue as such during the ensuing year with the co-operation of Ernest Weihe. The students have done excellent work since Mr. Frick has had charge, and a good year is looked forward to. The 1923-24 Atelier season opened Saturday, September 22d, with an enrollment of about 15. In connection with this, a free-hand drawing class has been organized and Mr. Ralph Wilkins of the California School of Fine Arts has been secured to act as instructor. This class has started with a good enrollment, and it is intended to change it to a Life Class, as soon as the present course is finished.

NEW YORK ARCHITECTURAL BOWLING LEAGUE

THE New York Architectural Bowling League was reorganized September 22, and games are being held every Tuesday at Joseph Thum's alleys, Thirty-first Street and Broadway, beginning at eight o'clock.

The membership of the Club is as follows:

Office	*Representative*
B. W. Morris	J. P. Farrell
McKenzie, Voorhees & Gmelin	G. A. Paradies
Cass Gilbert	H. G. Poll
Donn Barber	G. A. Flanagan
McKim, Mead & White	C. Hess
Thos. W. Lamb	A. F. Darrin
W. L. Stoddart	D. Soper
Sommerfeld & Steckler	J. Finegan
D. Robinson (Arch't Dept.)	M. R. Johnke
Alfred C. Bossom	E. L. Capel
J. Gamble Rogers	M. L. J. Scheffer
Warren & Wetmore	N. T. Valentine

The officers are as follows: President, E. L. Capel; Vice-President, H. G. Poll; Treasurer, P. M. Lynch; Secretary, N. T. Valentine. The members of the executive board are: Chairman, E. L. Capel; H. G. Poll; P. M. Lynch; N. T. Valentine; J. P. Farrell; G. A. Paradies; A. F. Darrin. Donald Campbell looks after the publicity.

Tournaments—Five Man—for cup; Three Man—for cup; Gold Medal to High Score Bowler (Individual); Gold Medal to High Average Bowler (Individual); Silver Medal to Teams Winning Cups; Silver Medal to Teams having highest score in one game. A Bowling Ball as a prize to the winner of Cover Design. Five Man Tournament—2 rounds; Three Man Tournament—1 round.

Standing to Oct. 15, 1923.

Office	*Won*	*Lost*	*P.C.*
Dwight Robinson	2	0	1000
McK. & V. & G.	2	0	1000
Alfred C. Bossom	2	0	1000
Cass Gilbert	1	1	500
W. L. Stoddart	1	1	500
Warren & Wetmore	1	1	500
Thos. W. Lamb	1	1	500
Donn Barber	1	1	500
J. Gamble Rogers	0	2	000
Sommerfeld & Steckler	0	2	000
McK., M. & W.	0	2	000

High Team Score—Dwight Robinson, 774. High Individual Score—Jones of D. Robinson, 200.

The Club was organized in 1906. Competitions were held from 1906 through the season of 1912-13. After that date no competitions were held until the Club was reorganized and once more became active last month. This is an excellent idea and one that it seems might well be taken up in other cities.

PERSONALS

JONES, ROESSLE and OLSCHNER and SAMUEL G. WIENER have formed a copartnership for the practice of architecture under the firm name of Jones, Roessle, Olschner & Wiener, with offices Ardis Building, Shreveport, La., and Maison Blanche Building, New Orleans, La.

JOHN GALEN HOWARD has become associated with E. GEOFFREY BANGS, HENRY C. COLLINS, HENRY TEMPLE HOWARD and CHARLES F. B. ROETH, Architects, for the practice of architecture under the firm name of John Galen Howard & Associates, with offices in the First National Bank Building, San Francisco, Cal.

RODIER and KUNDZIN have opened an office for the practice of architecture at 1216 Eighteenth Street, N. W., Washington, D. C.

THE ROCHESTER ASSOCIATED ARCHITECTS AND ENGINEERS, INC., have opened an office for the practice of architecture and engineering at 600 Duffy-Powers Building, Rochester, N. Y.

LAWRENCE A. KERR and HAROLD WALSH have purchased the interest of J. C. Berry in the firm of J. C. Berry & Co., Architects, Amarillo, Texas. The firm will hereafter be known as Kerr & Walsh, Architects. J. C. BERRY, Architect, has opened an office at suite 2, Horne Building, Long Beach, Cal.

MARTIN A. SHELDON has removed his offices to 950 Monadnock Building, Market Street, near Third, San Francisco, Cal.

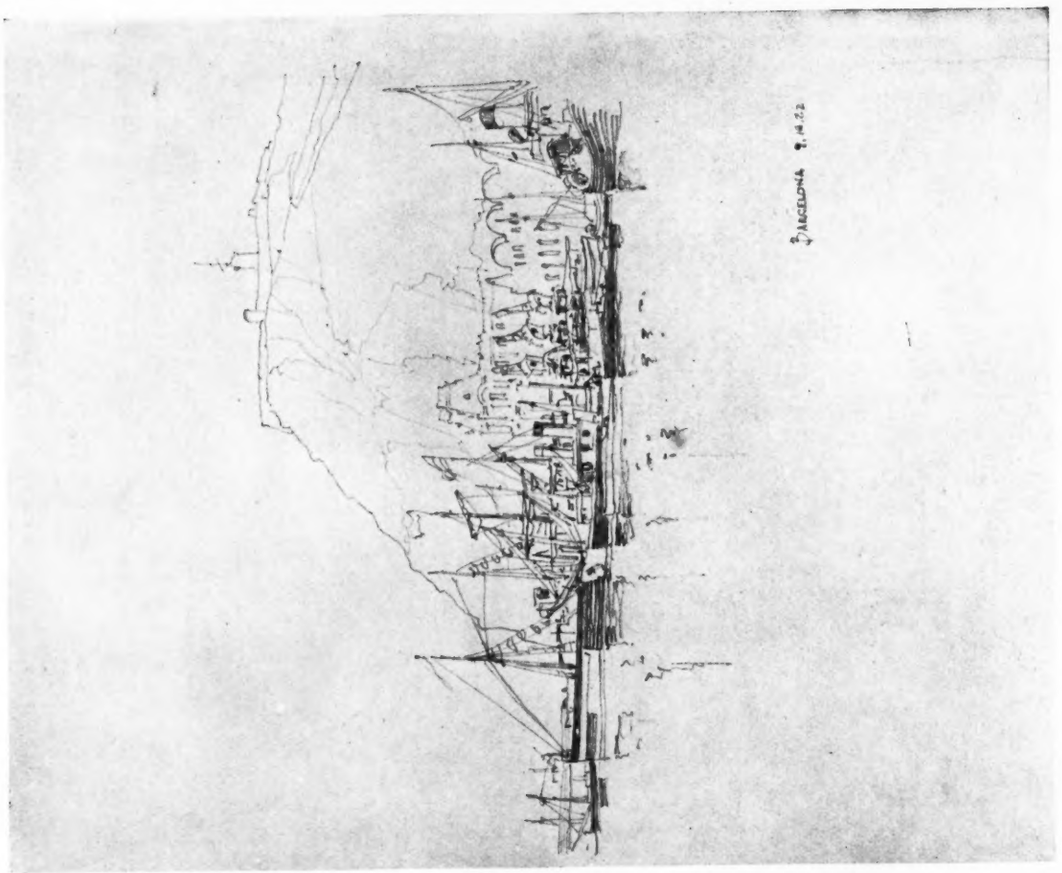
SCOTT QUINTIN has formed a partnership with THOMAS L. KERR under the firm name of Quintin & Kerr, Architects and Engineers, with offices at 310-11 Weber Building, Alhambra, Cal.

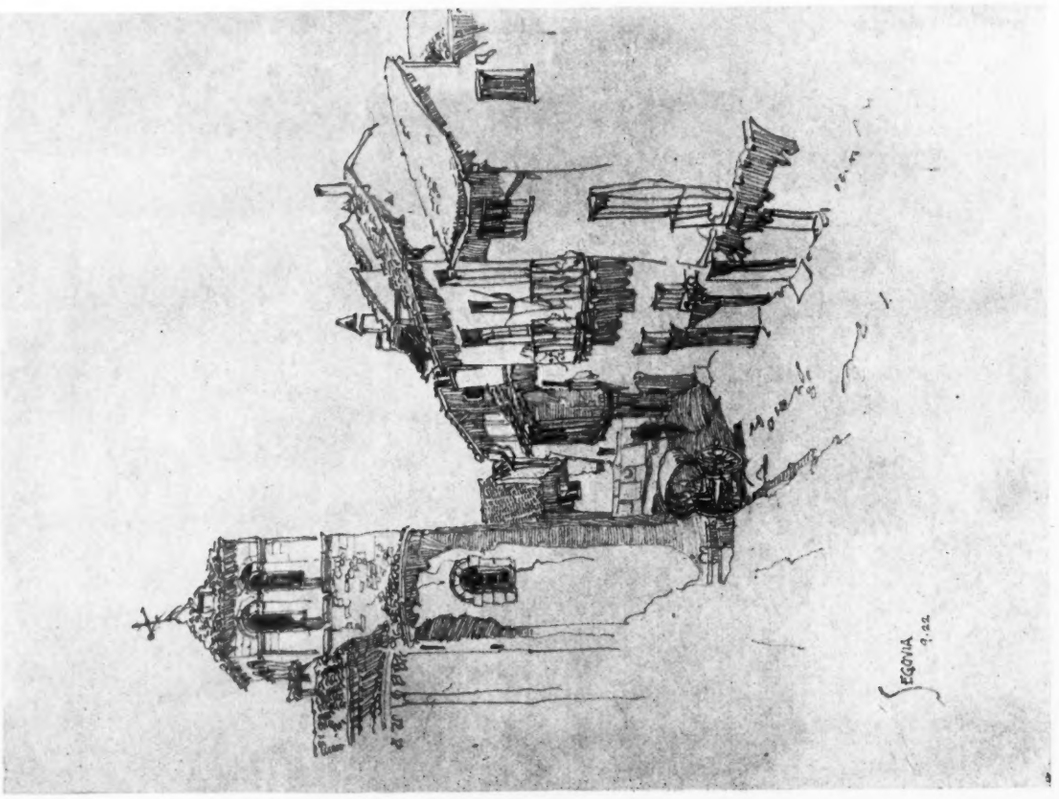
G. MEREDITH MUSICK has opened an office for the practice of architecture at 320 Guardian Trust Building, Denver, Col.

BERTRAM A. WEBER will continue the architectural practice of his father, Peter J. Weber, in his offices at 343 South Dearborn Street, Chicago.

J. A. ALTSCHULER has opened new offices for the practice of architecture at 115 East North Street, New Castle, Pa.

CHARLES E. KEYSER, Architect, has removed his offices to 317 Portsmouth Building, Kansas City, Kan.





Pencil Sketches by Ernest E. Weihe

M. CAMILLE E. GRAPIN ADDED TO THE FACULTY OF CARNEGIE INSTITUTE OF TECHNOLOGY

CAMILLE E. GRAPIN, a distinguished architect of France, has been appointed Professor of Architectural Design at Carnegie Institute of Technology for the coming year, according to an announcement from President Thomas S. Baker. Mr. Grapin's appointment is in line with the announced policy of the Pittsburgh institution to secure for its faculty, men of the highest authority in their respective professions.

In Mr. Grapin, Carnegie Tech. is securing an artist whose unusual training qualifies him to assist in broadening the work covered in the Department of Architecture. He has repeatedly distinguished himself through his numerous accomplishments as a graduate student in the National School of Beaux Arts in Paris.

He was born in France in 1886, and was graduated from the National School of Beaux Arts in 1914, doing graduate work in the following years. While a student at the school, he was awarded the Jean Leclere Prize which is given to the student receiving the greatest number of medals and prizes at the school. For the year of 1919-1920 he was given the Equal Second Prize in the Detouches, Delages and Roux Competiton, one of the most important competitions in France.

Among other honors conferred upon Mr. Grapin were a prize given to the student having the greatest number of values in problems, and the Chaplain Prize, which is given to the student winning the most values in design. Both of these awards were made by the Central Society of Architects in France.

THE AMERICAN ACADEMY IN ROME

FROM a letter recently received by Mr. C. Grant LaFarge, Secretary of the American Academy in Rome, from Mr. Gorham P. Stevens, Director, we quote the following items of news:

"August has been the month of vacations, repairs, annual report writing, departures of professors and fellows, and undisturbed work of the seven or eight fellows in residence.

"Prof. Showerman brought his Summer School to a successful termination with a written examination, and he and the members of his family are now en route for America. Every member of the Summer School will resume his teaching of the classics next year with greater enthusiasm and a better knowledge of Roman life and topography, thanks to Prof. Showerman's profound knowledge of Roman history and to his inspiring manner of imparting what he knows.

"Before leaving Rome Prof. Showerman donated fifty dollars to the library for the purchase of classical books.

"Mrs. Tenny Frank left unexpectedly on account of the sudden death of her father.

"Two of the fellows of the Academy, whose terms expired, have gone; they are Miss Adams of the Classical School and Architect Smith. The latter is now travelling in France; and later on he takes up a fellowship from the University of Pennsylvania, which will carry him to England and Spain. He returns to America in January or February.

"One new visiting student in architecture has registered with us, Mr. F. J. Woodbridge of Amherst and Columbia; and Mr. Leicester Holland, Associate Professor of Architecture in the American School of Classical Studies at Athens was accorded full privileges of the Academy in exchange for the many favors to our students when in Greece on the part of the authorities of that School.

"Architect Hafner has been hard at work upon his problems concerning S. Peter's. In this connection he and I have called upon H. E. Cardinal Merry del Val and upon the architect in charge of the Cathedral; and we have climbed all over the dome and followed up the copy which Mr. Hafner is having made of the model by Michel Angelo of the dome.

"A 'Friend of the Academy' has contributed $500 for placing our splendid bas-reliefs of the Arch at Benevento on the walls. This work is now progressing satisfactorily.

"Fresco painting has now assumed such proportions that more commodious quarters have been provided. Mrs. J. Montgomery Sears kindly donated the money needed for this transfer.

"All the gifts to the Academy—such as fireplaces, billiard table, trees, etc., have now been labeled with the names of the givers and the dates when the objects were given.

"Finally, I have to report the death of our valued porter, Vittorio Madalena.

THE EMBRYONIC SKETCH

(*Continued from page 23*)

It is almost needless to say that no jury will encourage esquisses on which fuzzy reason, indecision or lack of thought is shown, nor would a student himself if he were suddenly put in place of the jury. So much for the student.

An extraordinary development of the qualities mentioned above sometimes produces a very remarkable result. I have known one foreign architect who makes no preliminary sketch whatever, but thinks about a subject until he is apparently able to project it into the air in front of him, and taking a clean sheet of paper will start in one corner and draw straight across the paper until he has a complete record of his idea.

To illustrate this article, we have selected a series of plates which while they are very different one from the other, have one strong common characteristic, which is, that they are the clarifying, concrete expression of an impelling idea.

Figure 1 is a rough sketch of the possible solution on the program of a Marine Museum, which demanded a large entrance vestibule, a series of small exhibition rooms and an amphitheatre disposed around a court, in the center of which is a pool for large fish. The sketch, made *en loge* in Paris, by M. Expert, has an unusual quality of suggestion. The plan, the more difficult elevation and the section, have all been roughly thought out.

Figure 2 is a sheet of studies of St. Gauden's for the Shaw Monument. It shows just how they went through his mind—a whole series of different ideas within a very small compass.

Figure 3 is a study for the forecourt of St. Peter's by Bernini. The curious thing about this is the mystical idea of the Arms of the Church embracing the people. Any one who knew this drawing before seeing one of the enormous Fête Day crowds becoming pigmy-like in the *Piazza*, must have had an even more extraordinary impression.

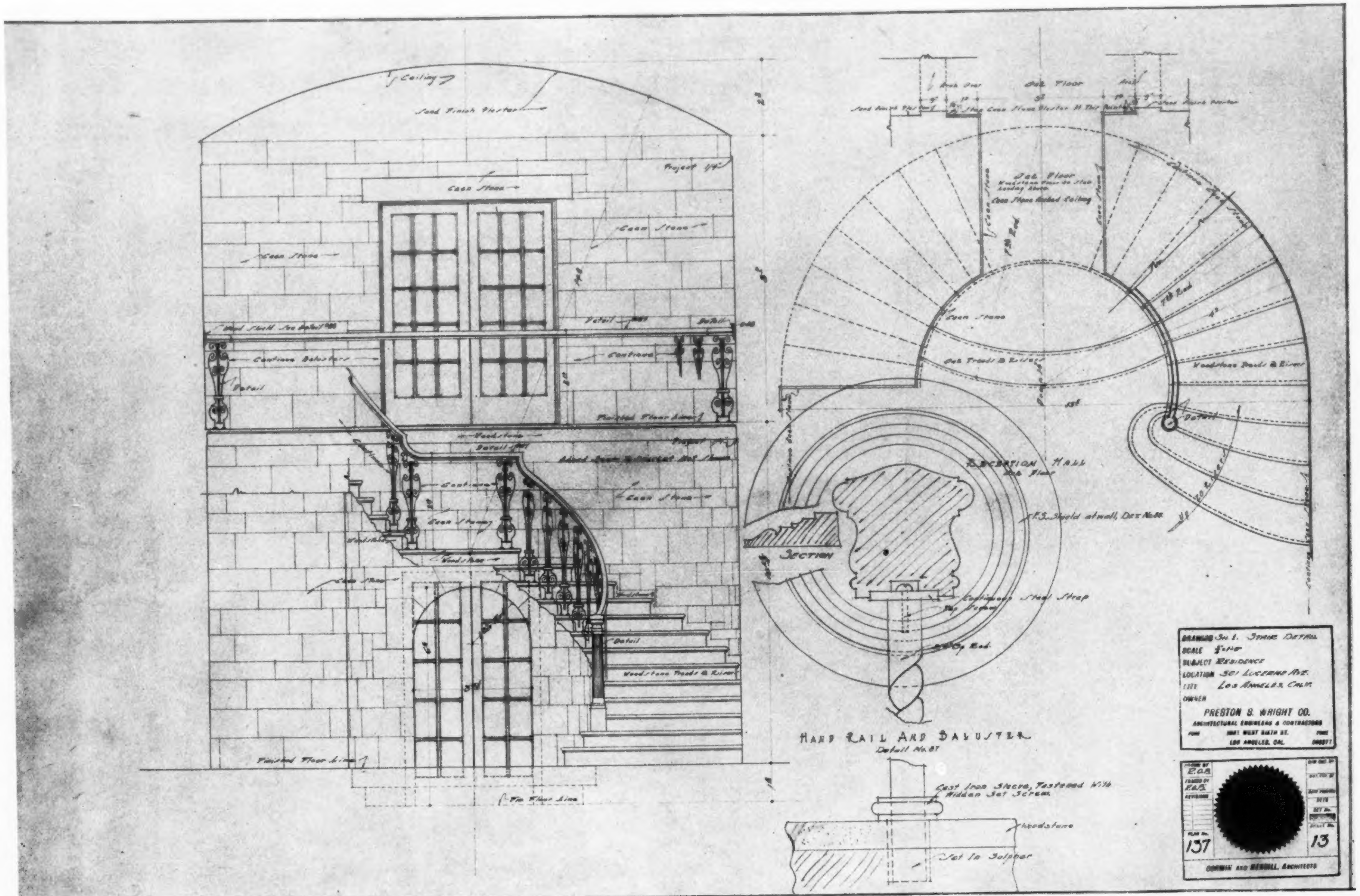
Figure 4 is a drafting room sketch made by the late Mr. McKim while studying the problem of Bellevue Hospital. It has exceptional solidity, the treatment of the masses is very clear, simple on either side, with all the interest in the center where there is also a deep court. An arcade appears to screen the court and to unify the composition by carrying the base line of the wings across the elevation.

Figure 5, a sketch of Leonardo Da Vinci's for a mausoleum, shows a very complete and directly expressed idea.

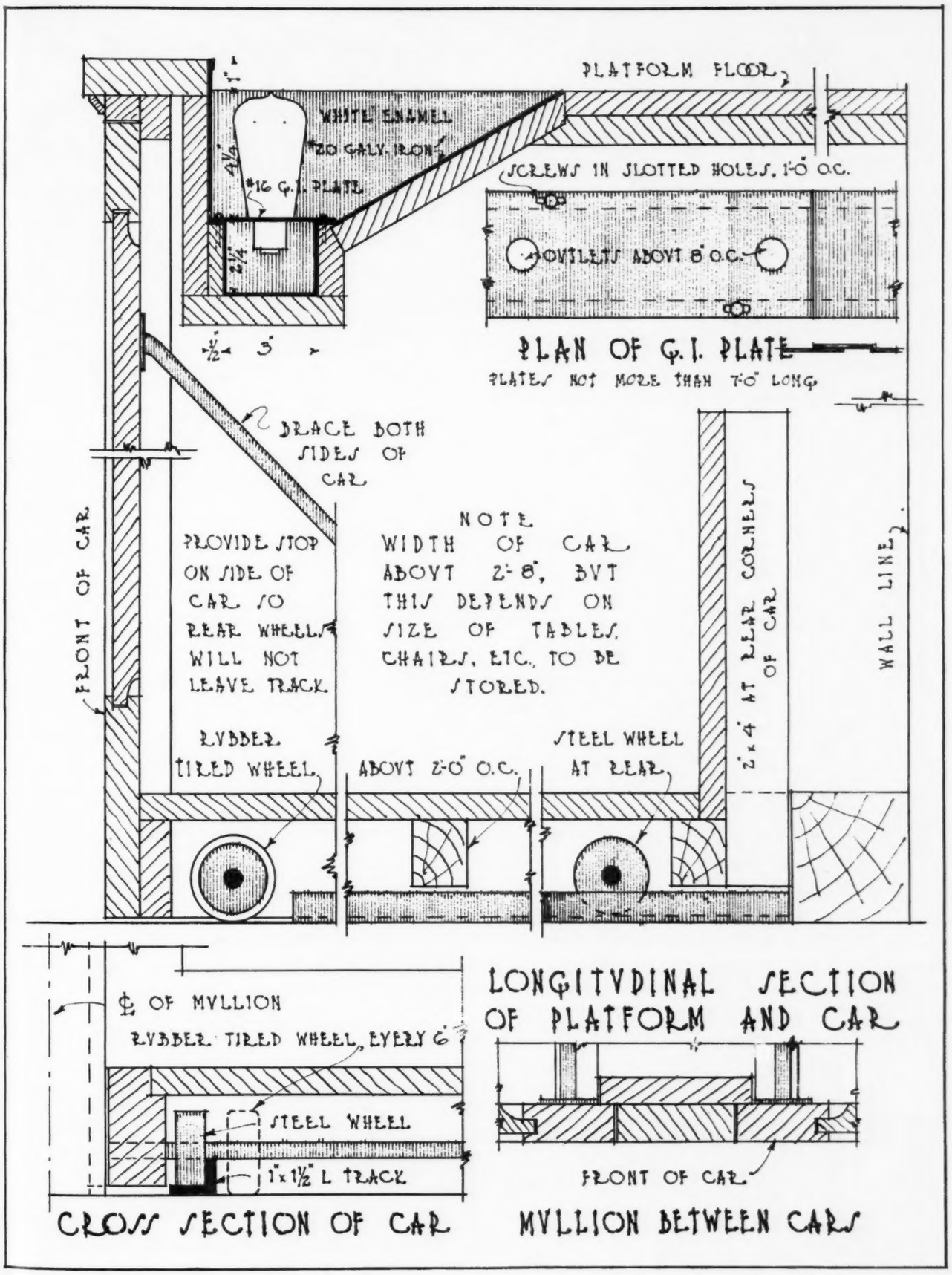
Figures 6, 7 and 8 are three plans by Michael Angelo for one site. They serve to show his grasp of the construction and of the constructive qualities.

ADDRESS WANTED

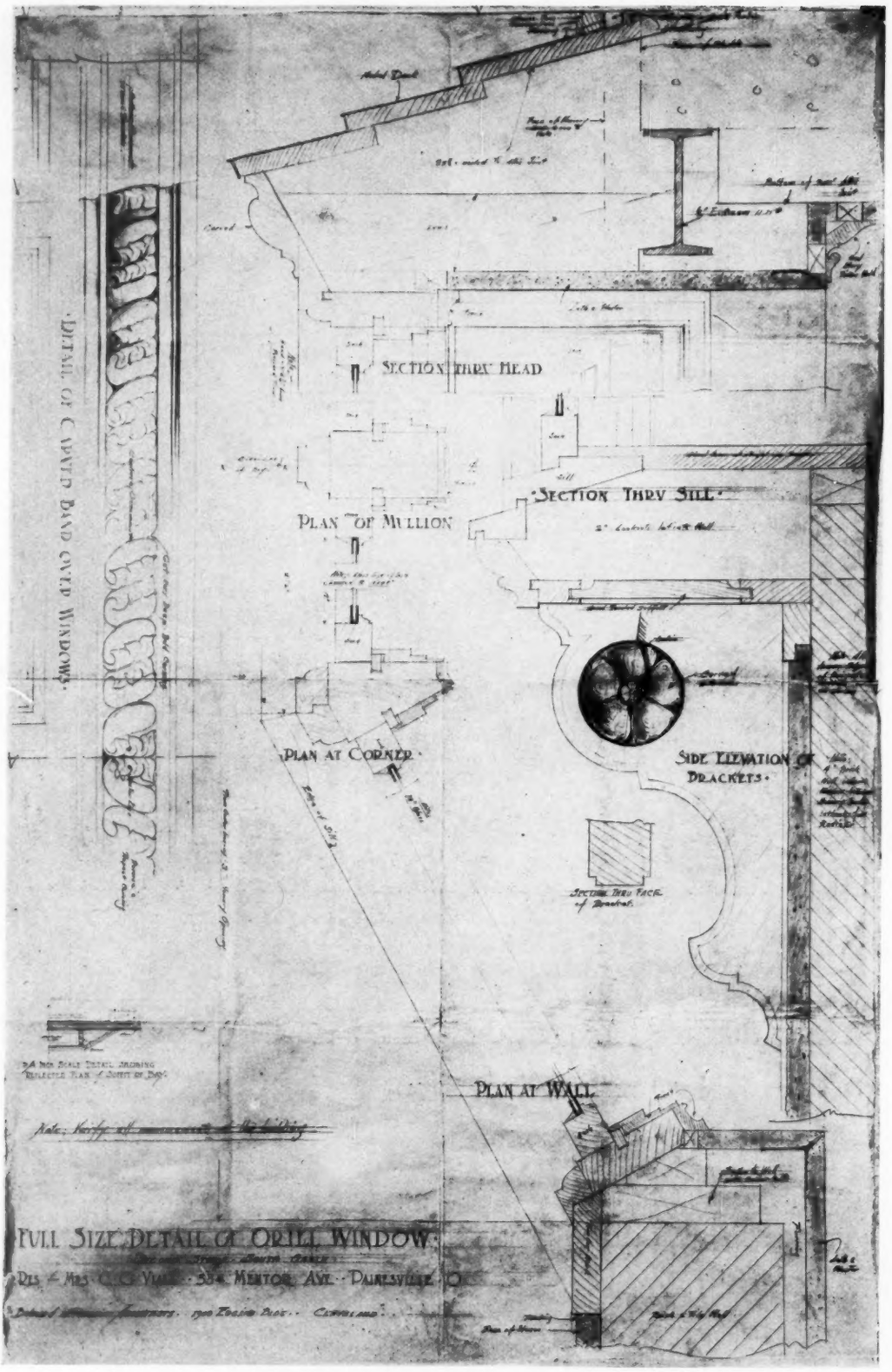
WE HAVE received from G. William Kern, 2 Rolf Apartments, Wheeling, W. Va., a request that we publish the fact that he would like information concerning Cyril F. Broad, architectural draftsman, native of Great Britain, last known to have been employed in California, and to have enlisted in the Canadian Army.



Details of Construction—Stair Detail. Corwin & Merrill, Architects, Los Angeles, Cal.


PLATFORM FLOOR
WHITE ENAMEL
20 GALV. IRON
#16 G.I. PLATE
SCREWS IN SLOTTED HOLES, 1'-0" O.C.
OUTLETS ABOVT 8' O.C.
PLAN OF G.I. PLATE
PLATES NOT MORE THAN 7'-0" LONG
BRACE BOTH SIDES OF CAR
FRONT OF CAR
PROVIDE STOP ON SIDE OF CAR SO REAR WHEELS WILL NOT LEAVE TRACK
NOTE
WIDTH OF CAR ABOVT 2'-8", BVT THIS DEPENDS ON SIZE OF TABLES, CHAIRS, ETC., TO BE STORED.
2"x4" AT REAR CORNERS OF CAR
WALL LINE
RVBBER TIRED WHEEL
ABOVT 2'-0" O.C.
STEEL WHEEL AT REAR
℄ OF MVLLION
RVBBER TIRED WHEEL, EVERY 6'
STEEL WHEEL
1"x1½" L TRACK
CROSS SECTION OF CAR
LONGITVDINAL SECTION OF PLATFORM AND CAR
FRONT OF CAR
MVLLION BETWEEN CARS

Details of Construction—Cars for Storage of Chairs, etc., Under Platform in School or Church Auditorium. Hewitt & Brown, Architects, Minneapolis, Minn.



Details of Construction—Oriel Window Bohnard & Parsson, Architects, Cleveland, O.

ARCHITECTURAL SUPERINTENDENTS MANUAL

(*Continued from page* 50)

of course also subtracting any expenses he may already have incurred. If there is any provision for the matter in the contract, of course that should govern.

At the close of the work, there is sometimes reason to require assurance that there are no unpaid bills which will fall on the owner after he has paid the contractor. This is almost a matter for a lawyer, as nearly every state has Lien Laws to enable mechanics to get their money, and sometimes such documents are recorded with the County Clerk, but in general a Release of Lien somewhat in the following form must be obtained from all those who have supplied material or labor for the job, together with a statement by the contractor that this is signed by all:

"WHEREAS, we the undersigned have furnished materials and performed labor for the erection of the residence for John Smith, at Smithtown, N. Y., and have agreed to release all lien which we have on said land and building by reason of the premises.

"*Now These Presents Witness* that we the subscribers, for and in consideration of the premises, and of payments made to us, have released John Smith, his heirs and assigns, from all manner of liens, claims and demands whatsoever against said building and land, so that he, his heirs and assigns, may hold the same freed and discharged from all liens, claims and demands against same.

"*In Witness Whereof* we have hereunto set our hand."

Independently of the cost of the work, the superintendent sometimes has to decide what part of his own expenses are legitimate charges to be paid (through the architect) by the job. As a general rule, it may be said that all expenses incurred because you attended to that job are chargeable. Pay your usual carfare to the office, and then charge all other carfare. If you are on a trip, charge all your meals, hotel bills, etc. But do not charge personal expenses, like souvenir postals to your family, or clothes. Whether you are entitled to travel in a taxicab or a five cent trolley, or whether put up at a ten dollar or a one dollar hotel, will depend somewhat on circumstances, the character of the job, and your relative importance. But in general it may be said that architects expect to be treated with the consideration that is due to a respected profession, and while their employees may be inferior in importance, at least they are entitled to fair accommodations.

ATELIER CAIRNS, MEMPHIS, TENN.

IN CELEBRATION of the resumption of activities Atelier Cairns of Memphis, Tennessee, entertained with a smoker on the evening of September 25.

A representative crowd of the art element of Memphis turned out, architects, draftsmen, commercial artists, decorators, and others interested, attending. Among the speakers of the evening whose talks were enjoyed, were Mr. Geo. Awsumb, President of the Architects League, Mr. Bayard Snowden Cairns, Patron of the Atelier, Mr. Hubert T. McGehee, architect, Mr. Achilles Stubbe, decorator, and Mr. Eldon Anderson, commercial artist.

The Atelier starts the season with a new name, having adopted that of its patron. The change was made as an expression of appreciation of the enthusiastic leadership of Mr. Cairns since the Atelier was organized. Mr. Cairns was of the class of 1899, Columbia University and continued his studies after graduation at Atelier Pascal, Paris, 1900-1903.

The Atelier has a diversified program for the coming year including outdoor sketching, life class work, and modeling, in addition to the regular beaux-arts work, and is looking forward to a highly successful season. The design for the invitation to the affair was made by Everett D. Woods, Massier of the Atelier.

THE HONOR OF YOUR PRESENCE IS REQUESTED
AT THE
CATS R BAWL
INAUGURATING THE BEAUX-ARTS SEASON OF
ATELIER CAIRNS
IN THE NEW QUARTERS OF THE ATELIER CORNER OF PLACE PIG ALLEY, AND AVENUE DE MADISON (FOR BENEFIT OF ALL WHO DO NOT SPEAK FRENCH THIS MEANS THIRD FLOOR BRITLING CAFETERIA BUILDING) TUESDAY EVENING SEPTEMBER TWENTY FIFTH 1923 AT 8 P.M. COME DISGUISED AS ARCHIE TECK THE FAMOUS CHARACTER CREATED BY RUBE KLIANT OR AS PENSELL POOSHER THE SLAVE. MASK OF INDIFFERENCE OR SIMILAR STUFF MAY BE WORN IF REMOVED AT ENTRANCE
EATS SMOKES MUSIC (THREE FLOORS DOWN)

Invitation Card Recently Sent Out by the Atelier Cairns, Memphis, Tenn.
Design by Everett D. Woods.

THE SPECIFICATION DESK

A Department for Specification Writers

MISCELLANEOUS ITEMS OF CONSTRUCTION, PART XIII.

By Otto Gaertner

In this series of notes Mr. Otto Gaertner, A.I.A., Associate Member American Society of Civil Engineers, is treating of a number of the minor matters of construction that are troublesome unless the architect happens to have met a similar problem previously—matters of a more or less special nature.—Ed.

Garages (Continued)—

Such cars are handled when they are empty. Another building may be a material distributing plant where trucks are first loaded on the several floors of the building and are then sent out of the building by way of the elevators which lower them to the entrance floor. When five ton capacity trucks are used and, as sometimes happens, they may be overloaded so that the combined weight of the truck and the load is over the fourteen thousand pounds, the load on the elevators becomes rather heavy.

It can readily be seen that the load on the elevators may easily become even greater than this and often it is well to be prepared for emergencies, when they occur. In garages and other buildings, where the bottom floor is used for the storage of cars, merchandise or materials, and the floors above are used for the storage of cars, the repair shops are often placed on the top or on one of the upper floors. Should a partially or fully loaded truck be found to be in need of a few repairs before being sent out it might not be possible to make them on the stock room floor. In these days, when labor is at a premium and when an early delivery of goods means greater profits or better satisfied customers, it is neither economical nor expedient to unload the truck before taking it up to the repair shop.

This can be done if the elevator is of ample capacity. Of course, the greater the loading capacity of the elevator, the more flexible is the working arrangement of the business, especially if the size of the elevator car is ample.

When it comes to the size, the nature of the traffic must again be borne in mind. If only small pleasure cars are handled the elevator car platform may be smaller than if large trucks are to be carried from floor to floor. For medium priced pleasure vehicles generally housed in the smaller garage buildings, a car platform eight feet wide and eighteen feet long has been found to give good service. In automobile service stations it may be necessary to consider making the elevator car platform large enough to accommodate a broken down vehicle whose front or rear is supported by a towing car. Another method of bringing a broken down car from one floor to another may interfere with the elevator service.

While such cases seldom if ever occur, there may be a great loss of revenue or patronage if they or other out of the ordinary cases cannot be quickly taken care of without annoyance to patrons. Such delays in the service also increase the overhead of the establishment even if there is more than one elevator.

Some people advocate the use of elevators having the following dimensions, loads, and speeds as giving satisfactory service. In small garages for medium priced pleasure vehicles they suggest elevator car platforms eight feet wide and eighteen feet long; for high priced and closed pleasure cars, nine feet wide and twenty feet long; for small commercial vehicles, ten feet wide and twenty feet long; for large trucks, ten feet wide by twenty-four feet long. For high priced pleasure cars and for closed cars the elevator should really be larger than necessary so as to surely eliminate any danger of damage to the cars by unskilled drivers, such damage being costly.

On the assumption that with the increase in the sizes and weights of the vehicles to be carried, the heights of the buildings would also be increased, they advocate that the speeds be increased also, so that for the elevators just mentioned the speeds would be from twenty to forty feet and from thirty to sixty feet per minute respectively for the first two sizes, and from twenty to fifty feet and from sixty-five to one hundred and twenty-five feet per minute for the last two. The load capacities for the four would be five, six, ten, and twenty thousand pounds in the order mentioned above. Some people allow thirty pounds per square foot for pleasure vehicles and thirty-five to forty pounds per square foot for trucks.

There is no fixed rule and the garage owners' financial ideas often govern the number, size, capacity, speed, type and quality of the elevator installations. When special conditions occur as to the use, space available, height of shaft, etc., they can generally be overcome by a little manipulation of the equipment furnished by most manufacturers. There are, however, numerous rules and regulations of local and state departments as to the construcion and dimensions of the elevator shaft and its surroundings as well as for the elevator equipment. The Board of Fire Underwriters, and the Insurance Exchange also have their rules which must be followed if the lowest insurance rates are wanted.

While we cannot dwell long on the types and details of elevator equipment we will give a few of interest to the reader regarding them. Their selection, except in cases where a mechanical engineer writes a very lengthy and exact specification for the equipment, is one calling for experience and judgment. No two manufacturers furnish exactly the same type of equipment so that an engineer's specification may be more easily followed by one than by another and the bids vary accordingly. In the absence of an engineer the garage owner, his architect, or his engineer calls in the representatives of the manufacturers, puts the problem before them for their suggestions and approximate estimates. He may then modify his own requirements and instruct them upon which of their types of equipment he wishes them to estimate and submit specifications. He must have a general knowledge of the equipment involved so that he can intelligently compare the specifications and select the type which gives the best value for its cost. There are often cases where the elevator is also used as a passenger elevator so that a better type elevator must be installed.

Generally speaking, there are several types in use, namely the hydraulic type of say from one to twenty-four thousand pounds capacity and with speeds from twenty-five to four hundred feet per minute, the drum type, and the traction type. The traction type may be the geared type with speeds from twenty-five feet per minute to over one hundred and fifty feet per minute, or they may be of the gearless type with speeds from four hundred and fifty to six hundred feet per minute. The gearless traction type of elevator is supposed to be the highest development of the traction idea, being very easy and smooth in operation. There is a type of operatorless electric freight elevator that is equipped with a leveling device and push button control so that several can be operated by an attendant from a control board, the doors being equipped with automatic door opening and closing devices. The attendant also has an intercommunicating telephone system to aid him. A single elevator may have push button controls and be operated by any one, not a regular attendant, if desired. Hand power elevators are only used when the service is infrequent and conditions justify a very small investment. In such installations, the gear ratios are necessarily low and the rope hauling process is slow and tedious.

(To be Continued)

PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER.

Any publication mentioned under this heading will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS *by the firm issuing the publication. When writing for any of these items please mention* PENCIL POINTS.

Andersen Window Frames.—Illustrated booklet with drawings covering design and construction of window frames. 24 pp. 8 x 11. Andersen Lumber Co., Bayport, Minn.

Safety From Fire.—Treatise on fire protection engineering as applied to construction and occupancy of buildings. 74 pp. 6 x 9. Associated Metal Lath Mfrs., 123 W. Madison St., Chicago, Ill.

Floor and Roof Drains.—Illustrated handbook showing up-to-date practice, diagrams, specifications and much useful data. 80 pp. 5 x 6. Josam Mfg. Co., Michigan City, Ind.

Du-Lite.—Illustrated booklet on treatment of factory and mill interiors with special reference to the proper utilization of light. 8½ x 11. 16 pp. E. I. duPont de Nemours & Co., Paint and Varnish Division, Wilmington, Dela.

North Carolina Pine.—Brochure illustrated with photographs and drawings with frontispiece in color, on the subject of planning the new home with particular reference to the exterior and interior woodwork. Examples of well designed homes, floor plans, etc. 24 pp. 8½ x 11. North Carolina Pine Association, Norfolk, Va.

Quality Centrifugal Pumps.—Specification folder, looseleaf, containing complete data on all types of pumps for building use, diagrams, layouts, etc. 9 x 12. Chicago Pump Co., 2300 Wolfram St., Chicago, Ill.

Alpha Cement—How to Use It.—Handbook with blueprints, diagrams, details, covering many types of concrete construction. Specification data. 104 pp. 6½ x 10. Alpha Portland Cement Co., Easton, Pa.

Celotex Tests.—Report made by Robert W. Hunt & Co., covering tensile and transverse tests on wall board materials. Also complete data on Celotex for many various uses. The Celotex Co., 111 W. Washington St., Chicago, Ill.

Seamless Tubing.—Handbook for architects, engineers and superintendents, covering subject of seamless copper and brass tubing. Much technical data, tabular matter, etc. 104 pp. Convenient pocket size. Bridgeport Brass Co., Bridgeport, Conn.

Atlantic Terra Cotta.—Monthly brochure. October issue deals with 15th Century Terra Cotta, illustrations being drawn from Bologna. 8 full page plates. The Atlantic Terra Cotta Co., 350 Madison Ave., New York City.

Changeable Bulletin Display Boards.—Bulletin on the subject of display boards for office buildings, theatres, etc. 24 pp. 6 x 9. The Tablet & Ticket Co., 1015 W. Adams St., Chicago, Ill.

Lebanon Speedee-Heet.—Data sheet on subject of good steam heating with typical layout and other useful information. Lebanon Machine Co., Inc., 98 Park Place, New York City.

E. S. Bulletin.—Many interesting items on the subject of elevator signals, safety devices, etc., etc. 8 pp. 8½ x 11. Elevator Supplies Co., 1515 Willow Ave., Hoboken, N. J.

The Story of Commercially Pure Iron.—Treatise on subject of corrosion in its relation to materials used in building construction. 48 pp. 6 x 9. American Rolling Mill Co., Middletown, Ohio.

The Right Angle.—Monthly bulletin, the October issue of which treats of fire prevention. 24 pp. 8½ x 11. General Fireproofing Co., Youngstown, Ohio.

Mortar Colors.—Data sheet with 12 panels in color showing mortar joints in combination with brick of various colors and textures. Also much useful information on the coloring of stucco. 8½ x 11. Clinton Metallic Paint Co., Clinton, N. Y.

Eye Comfort.—Looseleaf portfolio on the subject of modern lighting devices. National X-Ray Reflector Co., 235 W. Jackson Blvd., Chicago, Ill.

Crysteel.—Booklet illustrated in color covering a wide variety of porcelain enameled products, lighting fixtures, etc. 24 pp. 6 x 9. Benjamin Electric Mfg. Co., 847 W. Jackson Blvd., Chicago, Ill.

Irving Specialties.—Illustrated booklet giving complete information on fireproof ventilating flooring for use in industrial plants, as a covering for areaways and for many special uses. 80 pp. 4½ x 8½. Irving Iron Works, Long Island City, N. Y.

Fireplace Satisfaction.—Illustrated booklet with blue prints covering installation of Humphrey Radiant-fire. General Gas Light Co., Kalamazoo, Mich.

Your Bathroom with the Kenney Shower.—Illustrated booklet showing methods of installing the Kenney Curtainless Shower. 16 pp. Kenney-Cutting Products Corp., 507 Fifth Ave., New York City.

Minneapolis Dual Control.—Folder explaining improvements in the science of automatic heat control as applied to hot water, steam or vapor heating systems. Minneapolis Heat Regulator Co., Minneapolis, Minn.

Specifications for Building Equipment Control Apparatus.—These specifications include the requirements for motor control equipment in public buildings, schools, etc. 8 pp. 6 x 9. Electric Power Club, B. F. Keith Bldg., Cleveland, Ohio.

Adsco Heating.—Attractive booklet, 16 pp., covering subject of low pressure steam heating systems. American District Steel Co., North Tonawanda, N. Y.

Beautiful Homes.—Folder in colors, showing color schemes for hall, living-room, dining room, bed room and pantry in attractive residences. Berry Bros., Detroit, Mich.

Lighting Service for Banks and Insurance Companies.—Brochure illustrated by engravings and diagrams showing both direct and indirect lighting equipment suitable for use in banking and similar buildings. Contains much practical data. 8 x 11. 32 pp. I. P. Frink, Inc., 24th St. and 10th Ave., New York City.

Glass Lined Laundry Chutes.—Instructive little booklet on an interesting specialty. Indispensable in hospitals and other institutions and extremely useful in modern residences. The Pfaudler Co., Rochester, N. Y.

Copper—Its Effect upon Steel and Roofing Tin.—Scientific treatise on the subject showing exhaustive comparative tests of roofing materials. Fully illustrated. Specifications. Plates showing details for tin roofing and sheet metal work. 40 pp. 8½ x 11. American Sheet & Tin Plate Co., Frick Bldg., Pittsburgh, Pa.

The Banking House in Art Metal.—Attractive illustrated brochure covering subject indicated. Many full page illustrations of banking interiors properly equipped. 70 pp. 8½ x 11. Art Metal Construction Co., Jamestown, N. Y.

Crittall Universal Casements.—Catalog No. 22 in sepia illustrating and describing completely full line of casement windows. Many full-page plates, sectional drawings, details, etc. A valuable addition to any architect's working library. Crittall Casement Window Co., Detroit, Mich.

Duriron Acid-proof Drain Pipe.—A handbook for architects and engineers covering layouts for laboratories and other conditions involving the problem of pipe corrosion. Much valuable technical data. Sectional drawings, tables, specifications. 20 pp. 8½ x 11. The Duriron Co., Dayton, Ohio.

Modern School Lighting.—Illustrated booklet with tables covering subject. Useful diagrams and other specification data. 36 pp. 6 x 9. The Holophane Glass Co., 342 Madison Ave., New York City.

Once Used Water.—Booklet on the subject of washing and bathing in running water. Illustrated. Shower fixtures, specialties, etc., are listed and described. 16 pp. Speakman Co., Wilmington, Dela.

The Bond That Guarantees the Wall.—Illustrated brochure showing advantages and uses of Carney's cement for mortar. 24 pp. 8½ x 11. The Carney Co., Mankato, Minn.

Solving Your Painting Problems.—Illustrated booklet containing specifications for both inside and outside work. 44 pp. 8½ x 11. Hockaday Co., 1823 Carroll Bldg., Chicago, Ill.

The Story of Shearduct.—Brochure illustrated with full page pencil drawings of buildings by prominent architects in which Shearduct has been used. Specifications and 6 pages of sectional drawings. Tables of dimensions, etc. 40 pp. 8½ x 11. National Metal Molding Co., Pittsburgh, Pa.

Fireproof Veneered Doors and Trim.—A 16 page book. 8½ x 11. Containing full information and complete details and specifications relative to Pyrono Fireproof Veneered Doors and Trim, also Pyrono details in sheet form for tracing. The Compound & Pyrono Door Co., St. Joseph, Mich.

Lupton Steel Windows.—Bulletin with price list covering the subject of steel windows for apartments, residences, basements, schools, hospitals, etc. 16 pp. 8½ x 11. David Lupton's Sons Co., Allegheny Ave. and Tulip St., Philadelphia, Pa.

The Book of Masterbuilt Floors.—Attractive 12 page booklet done in color covering descriptions and uses of Colormix concrete floor hardener, waterproofer and dustproofer. The Master Builders Co., Cleveland, Ohio.

Lithoprints.—Portfolio describing methods of making lithoprints, their uses and advantages. Looseleaf binder. 8¾ x 11¼. The Lithoprint Co., 41 Warren St., New York.

A LETTER ON SPECIFICATION WRITING

AN INTERESTING and helpful letter that we have received from Edmund H. Poggi, Architect, Wilkes-Barre, Pa., is printed below.

"It is my opinion that your department 'The Specification Desk' constitutes a most valuable part of your very good magazine. Without doubt the Architectural profession in general has slurred over the matter of specifications for years past, and has therefore been subjected to much well deserved criticism.

"Plans and elevations, perspectives, and pictures of buildings find places in exhibitions and are intensely interesting to the general public, whereas specifications or technical information would deeply bore the average citizen. My experience in Architecture, in contracting, and in the shop, field and office, as well as the rendering of expert Court testimony have, however, convinced me of the supreme value of the specification.

"Incidentally, I desire to express my appreciation of the type of Architect who has willingly permitted his specification to be published, and who has said unselfishly "Shoot," with the result that many have shot. May we not see some of the shooters' specifications?

"In the matter of standardizing specifications would it not be well for the experts in the various lines to compile a glossary of terms which are understandable to the mechanic, and in order that items of similar character may be singled out? In some portions of our Country the terms Rain Conductor, Downspout, and Leader describe the same article. In some places the word Saddle means Threshold, etc. The manufacturers could be of great assistance in this matter of the standardization of terms.

"My own specifications are long but are intended to be actually specific. It is my purpose to acquaint the contractor and mechanic with my precise meaning, and I have found that where the intention is definite there is much less room for contention. They are carefully indexed and are sub-divided by Sections, as for instance: Section 1 contains Form of Proposal and Instructions to Bidders. Section 2 refers to General Conditions, Special Conditions, Scope of Work, and Materials: Miscellaneous. Section 3 refers to Excavating and filling, Concrete Work and Forms, Masonry, etc.

"The matter under the heading referred to is further divided under captions and the paragraphs are made as small as possible in order that an item may be located in the least possible time, and to eliminate the necessity for reading a lot of useless text which may be non-essential in the particular instance.

"Under the head of 'Materials: Miscellaneous' are listed and specified those materials which the general contractor and his sub-contractors as well may employ, and the purpose is to standardize the materials to be used throughout and eliminate repetition. In the General Building Specifications I refer to such items as cements, lime, sand of various screens for the several purposes, aggregates, reinforcements, etc., and in the Plumbing Specifications to pipe, such as earthenware H & S, land tile drain, brass, wrought iron, steel, lead, as well as fittings, valves, connections between pipes, and specification material of like character which may be standardized from one specification to another.

"Among the multitude of items is one which I have not seen in the specification of others, and which relates to the storage of materials upon operations of extensive character where a number of contractors are employed under separate contracts. The drawings designate the storage spaces alloted to each contractor, reserving all trench spaces and temporary or permanent driveways, and the specifications require the contractors to occupy only those spaces allotted to them. This is a highly valuable precaution but one which can hardly be recommended to those who have scant experience in the field. It is a fair notice to the contractor concerning his limitations, and affords each contractor a fair chance. Furthermore it avoids the possibility of a contractor storing several tons of materials across the site of a trench which must be excavated by another contractor, with a resultant loss in dollars and cents to somebody, possibly the Owner.

"However, although discussions regarding specification writing are of much value, the thing of greatest value is the specification itself. How does it appear in *Your* specification (?) is the quesion that goes home, and I shall be glad to see the specifications of experts reproduced as they actually appear, not Government specifications which are subject to limitations, but the specifications of the leaders in Architecture in New York and Chicago for whom the rank and file of the profession have the deepest respect and admiration."

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of PENCIL POINTS, published monthly at Stamford, Conn., for October 1st, 1923.

State of New York, } ss.,
County of New York, }

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared W. V. Montgomery, who having been duly sworn according to law, deposes and says that he is the Business Manager of the corporation publishing Pencil Points, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of — *Post office address*

Publisher, The Pencil Points Press, Inc., 19 East 24th St., N. Y. City.

Editor, Eugene Clute, 19 East 24th St., N. Y. City.

Managing Editor, None.

Business Manager, W. V. Montgomery, 19 East 24th St., N. Y. City.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent. or more of the total amount of stock.)

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3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent. or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is..... (This information is required from daily publications only.)

W. V. MONTGOMERY,
Business Manager.

Sworn to and subscribed before me this seventh day of September, 1923.

[SEAL.]

G. H. SYKES,
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My commission expires March 30, 1924

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THE TECHNIQUE OF RENDERING

(*Continued from page* 34)

graded, appear to have been used to tone the building and indicate main shadows. Two additional washes, of darker tone and each graded out with water, are used over the openings and shadows cast upon them. The only retouching apparent is in the grilles over the entrance doors, the lines around the sash divisions of the windows and a few secondary, or reflected, shadows in the capitals of the columns and in the main shadows cast by the cornice upon the frieze and by the entablature upon the curtain wall back of the columns. The general effect of the drawing might have been improved if the plane of the stage wall had been darkened, and if the window openings had been somewhat lighter or darker to give solidity to the building and avoid the illusion of looking through the façade into the background. The crisp outlines were drawn with a very hard pencil and have withstood the dark washes well enough to make retouching with black or white unnecessary. Such technique is applicable only to the small size of drawing in which it appears—a drawing about 12 x 18 inches in size and made to be read at the eye-range for fine printed matter. The original drawing, somewhat soiled and battered during several years in the office, is now less distinct in the original than in the reproduction. The color of the original wash is also warmer than that of the printer's ink.

From the charming and rather over delicate technique of the New Theatre drawing there is a tremendous jump of style and vigor to the masculine drawing of a doorway at Paris by M. Charles Montaland, Figure 22. The original drawing was in a greenish-grey monochrome and the first light washes with which the subject is defined, graded and given its luminous effect are concealed by a retouching of strong washes, stroked and "tickled" on to free the drawing from the effect of the studied process and give it the appearance of carelessness of technique. A certain truculence of style, restrained by dignity, pervades the drawing—and the architecture—and seems to deny academic method and manner while revealing the fact that its author knew all about both. The subject and the scale of the drawing afford scope for personal interpretaton. Without a knowlede of academic shades and shadows the luminous shadow cast by the balcony would never have been indicated as it is: but without sympathy with form, and a sense of modelling that has little to do with training, all the academic method in the world would never have enabled its author to produce this beautiful representaton which is better than a water color as a presentation drawing and more valuable than a photograph as a correct document. The tricks of the skilled technician appear through the cloak of artistry. Note the effect of firm ruling of high lighting on the mouldings of the doors, the high lights on the arrises of pilasters, and at the horizontal stone joints, and the shade lining along the edges from which the shadows are cast. But if any student thinks such drawing is *all* technique let him try his hand at improving the indication of the consoles, keystone and lunette carvings or the delightful iron balcony grille!

(*To Be Continued*)

DESIGN IN THE DRAFTING ROOM

(*Continued from page* 47)

Figure 1 shows a presentation sketch study of a residence and its surrounding garden treatment. The ensemble of plans and elevations presented in this way is very interesting. To see plans and elevations grouped on one sheet always appears very fascinating, especially to the eye of the layman. This method offers an economical and effective way of study and presentation. The suggestion of the contemplated work is practically all shown, and is especially valuable in "talking the matter over," by the architect and client.

Figure 2 shows a "thumb nail sketch" of a plan and a rough study pencil elevation of a camp lodge. The character of the proposed building is well defined; no guessing is necessary to see what is intended; every line counts. This is a practical, deciding, and valuable drafting room sketch study, and forms the absolute character of how the executed work will appear.

Figure 4 shows a free-hand perspective sketch of a mausoleum. Simple as the sketch may appear, this drawing is the result of experience, knowledge of the value of line for line, the penetrations and intersections indicated forming a complete mass study. This is a very difficult study and requires an absolute control of the imagination, indicated by the pencil on paper.

Figure 5 shows a pleasing way of showing plans and elevations on a presentation drawing sheet. The plans and elevations are more exacting than those shown by illustrations, Nos. 1, 2, 3 and 4. The study is more exacting and precise. Freedom of indication has not been neglected. It would be well if the architect who specializes in dwellings, could present his drawings in this manner. The client would then know "what he is to receive" and the architect would know "what requirements have to be met" after consultation with the client. The drawings are practically ready, then, to work up into shape for estimating and contract purposes. A presentation drawing of this character is well worth the study. Better designs and execution of the smaller types of dwellings would be the result, if indicated and suggested in this manner.

The above examples are merely suggestions set forth. No particular method of study of character or architecture has been given. The ways and means are many.

In the next article on design in the drafting room, this will be more fully considered.

(*To Be Continued*)

FROM BUDAPEST

FROM a PENCIL POINTS reader who made an architectural inspection of the city hospital at Budapest recently, we have received a letter stating that Dr. Joseph Karcsay would like to hear from his brother, Emil Karcsay, who is an architectural draftsman in the United States. The letter requests that we make an effort through this journal to let Emil Karcsay know that Dr. Joseph Karcsay would like to hear from him at the new St. John's Hospital, Budapest, Hungary. As we are always glad to be of service to our readers we hope that this item may come under the eye of the draftsman mentioned and the desired communication between these brothers be established.

A FREE EMPLOYMENT SERVICE FOR PENCIL POINT READERS

(*Other Items on Page* 68)

Position Wanted: Draftsman with eight years' general experience on residence, apartment and office buildings. Capable of producing preliminary sketches, working drawings and details. Box 215, Pencil Points.

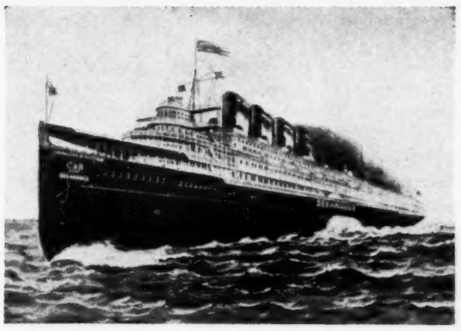
Experienced Draftsman in reinforced concrete and steel wishes position. Excellent references. Box 216, Pencil Points.

Architect would like position in architect's or builder's office, either as draftsman or architectural salesman. Expenses and commission. Box 217, Pencil Points.

Draftsman wishes position—any sort of work—salary secondary consideration. Graduate College of Architecture, Cornell University. One summer of drafting in engineering office. Box 218, Pencil Points.

Position Wanted by draftsman; five years' machinery layout, industrial factory layouts. Maintenance engineer, construction superintendent. Has written specifications and made drawings for power plants, heating, lighting, sprinklers, shelving, elevators, dumbwaiters. Two years at layout and planning machinery and equipment for the manufacture of metal barrels, boxes and garages. One year at drafting and specificaton writing on office buildings. Box 219, Pencil Points.

For Sale: Lowell, Italian Villas. Unused. Vol. 1, $15.00; Vol. 2, $20.00. Box 167, Pencil Points.



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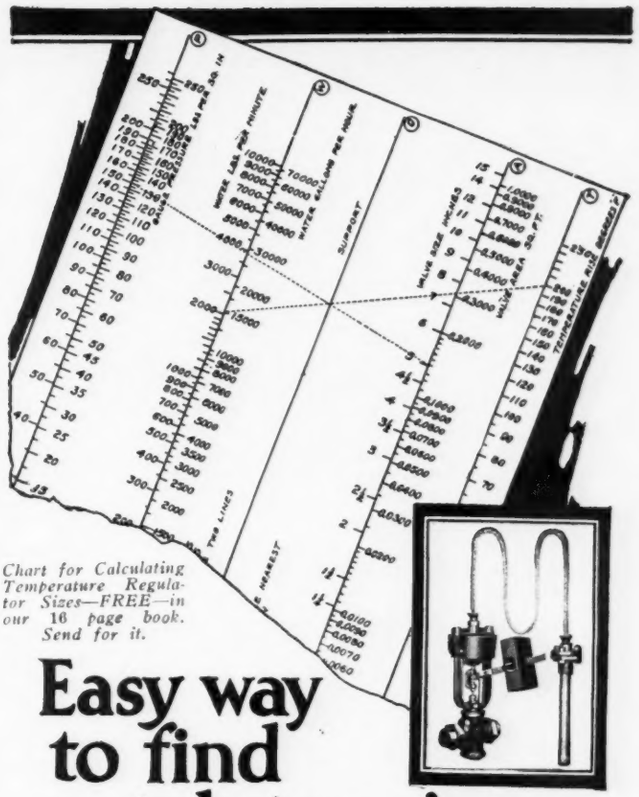

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Three War Veterans who have been trained under the direction of the United States Veterans' Bureau as draftsmen for the past two and a half years are seeking employment with architects, builders or any branch of the building trades requiring draftsmen. Amount of compensation secondary. These men are all physically fit, and desire, as soon as possible, to become self supporting. Box 202, Pencil Points.

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Architect (Christian), 25 years' experience in all phases of the profession and with all types of buildings. Capable of taking charge of office, acting as chief draftsman or squad captain. Also first class draftsman. Desires permanent connection with office where future will be assured, and salary commensurate with above qualifications. Highest credentials. New York preferred. Box 193, Pencil Points.

An Architect with well rounded out experience desires to make radical change and connection with reputable concern where future and salary will be dependent upon ability and effort expended. Highest references. Selling experience. Box 194, Pencil Points.

Senior Draftsman desires position of responsibility with chance for advancement. All around experience covering all phases of work. Age 29. University graduate. Member Provincial Architectural Association. Any locality. Box 204, Pencil Points.

Position Wanted: Architectural draftsman. University graduate. Sixteen years' experience. Good all around man. Any locality. Box 205, Pencil Points.

Position Wanted by draftsman, 25 years' experience in practical drafting. Sketches, working drawings, designing elevations, details, specification writer, superintending various kinds of buildings, New York City and vicinity, including country residence work. References, samples of drawings, etc., photographs furnished. Registered architect; given up practice. Salary $75 to $85 week according to requirements. Will work in or out of State of New York. Box 206, Pencil Points.

Student in architecture and structural engineering completing last year would like to become connected with architectural concern. Box 207, Pencil Points.

Junior Draftsman wishes position. Can work from sketches, trace, and generally useful in drafting room. Beaux-Arts Student. One year's experience. Box 208, Pencil Points.

Junior Draftsman wishes position. Five years' experience in capacity of estimator and draftsman. Can make scale and full size drawings, compile estimates and be generally useful. Box 209, Pencil Points.

Draftsmen—We want one or two senior draftsmen who can prepare working plans from a rough sketch. State experience and kind of work, wages wanted, age, etc. Permanent position for right men. J. C. Fulton & Son, Architects, Uniontown, Pa.

Wanted for large architectural office in Chicago—three practical men experienced in working drawings and one or two expert designers. Apply to Mr. Lucian Smith, architect, 247 Park Ave., New York City.

Junior Draftsman, Columbia University extension student, wishes position in New York City. Philip Pace, 115 East 129th St., New York City.

Architect desires position as specification writer, twelve years' experience, own office. Dependable, best of character, married. Box 210, Pencil Points.

Registered Architect, twelve years' all around experience, would consider interest with established architect or contractor who needs architectural service. Box 200, Pencil Points.

General Architectural Draftsman wishes position. Sixteen years' experience. Salary $65 per week. Box 211, Pencil Points.

Junior Draftsman, nine months' experience, would like position in New York City or vicinity. Box 212, Pencil Points.

Position Wanted: General architectural draftsman. Graduate of Michigan University—special work at M. I. T., Boston, one year and a half experience. Box 201, Pencil Points.

Position Wanted: Good junior draftsman, experience two and a half years. Residential work. Box 199, Pencil Points.

Position Wanted: Draftsman, graduate of Harvard College. One and a half year's experience, residential work, including some rendering. Box 198, Pencil Points.

Position Wanted by draftsman—four years' experience residence work. Two years' schools and business buildings. Box 196, Pencil Points.

Draftsman with four years' experience in working drawings and scale drawings, details, etc., is looking for position in New York City or vicinity. Charles L. Calderon, 363 Lenox Road, Brooklyn, N. Y.

Position Wanted by young architectural draftsman with ten years' experience and all around ability leaning toward design, wishes permanent position with architectural firm in a good university town where he may have opportunity to attend classes in design. Box 192, Pencil Points.

Position Wanted in New York City or out of town by architectural draftsman with five years' experience in New York architectural offices, having worked on banks, office buildings, apartment houses, residences, etc. Best references. Box 214, Pencil Points.

Experienced Draftsman would like connection with architect or decorator. Can handle all kinds of work; scale drawings, details, etc., and especially interiors. Salary $60 per week. New York City only. Box 223, Pencil Points.

Draftsmen Wanted: We want several good draftsmen for marble work. Openings in New York City and the middle west. Full particulars from Tompkins Kiel Marble Co., 505 Fifth Ave., New York City.

Senior Architectural draftsman, thorough experience with well known firms, training at Columbia University Extension, capable of running small office, where work of good quality is desired. Apartments, office, hotels, hospitals and residential. Salary secondary. Box 222 Pencil Points.

To a first class architectural draftsman who is a graduate of a recognized school, who is quick, accurate and practical as well as an artist, who can get work done without fuss or delay, who has had sufficient experience to know the "insides" of all types of buildings, who is willing to work for a fair salary, is offered charge of the drafting department of a small but well known firm with eventual partnership. Box 221 Pencil Points.

New York City firm of architects desire to secure the services of a draftsman familiar with city planning. Project in hand calls for the laying out of grounds for a residential development. Box 220, Pencil Points.

(For Additional Items See Page 66)